

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:SSPTAJDA1614

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

\*\*\*\*\* Welcome to STN International \*\*\*\*\*

NEWS 1 Web Page for STN Seminar Schedule - N. America  
NEWS 2 NOV 21 CAS patent coverage to include exemplified prophetic  
substances identified in English-, French-, German-,  
and Japanese-language basic patents from 2004-present  
NEWS 3 NOV 26 MARPAT enhanced with FSORT command  
NEWS 4 NOV 26 CHEMSAFE now available on STN Easy  
NEWS 5 NOV 26 Two new SET commands increase convenience of STN  
searching  
NEWS 6 DEC 01 ChemPort single article sales feature unavailable  
NEWS 7 DEC 12 GBFULL now offers single source for full-text  
coverage of complete UK patent families  
NEWS 8 DEC 17 Fifty-one pharmaceutical ingredients added to PS  
NEWS 9 JAN 06 The retention policy for unread STNmail messages  
will change in 2009 for STN-Columbus and STN-Tokyo  
NEWS 10 JAN 07 WPIDS, WPINDEX, and WPIX enhanced Japanese Patent  
Classification Data  
NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3,  
AND CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.  
NEWS HOURS STN Operating Hours Plus Help Desk Availability  
NEWS LOGIN Welcome Banner and News Items  
NEWS IPC8 For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that  
specific topic.

All use of STN is subject to the provisions of the STN Customer  
agreement. Please note that this agreement limits use to scientific  
research. Use for software development or design or implementation  
of commercial gateways or other similar uses is prohibited and may  
result in loss of user privileges and other penalties.

\*\*\*\*\* STN Columbus \*\*\*\*\*

FILE 'HOME' ENTERED AT 11:38:48 ON 21 JAN 2009

=> file registry		
COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	0.22	0.22

FILE 'REGISTRY' ENTERED AT 11:39:05 ON 21 JAN 2009  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
COPYRIGHT (C) 2009 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 20 JAN 2009 HIGHEST RN 1094597-78-0  
DICTIONARY FILE UPDATES: 20 JAN 2009 HIGHEST RN 1094597-78-0

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH July 5, 2008.

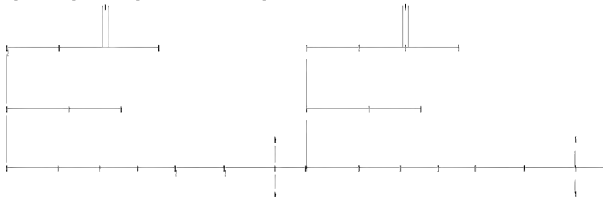
Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stdoc/properties.html>

=>

Uploading C:\Program Files\Stnexp\Queries\10781894\_NEW\_20090121.str



chain nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18

chain bonds :

1-2 1-6 2-3 3-4 3-5 6-7 6-9 7-8 9-10 10-11 11-12 12-13 13-14 14-15  
15-16 15-17 15-18

exact/norm bonds :

2-3 3-4 3-5 6-7 7-8 9-10 10-11 11-12

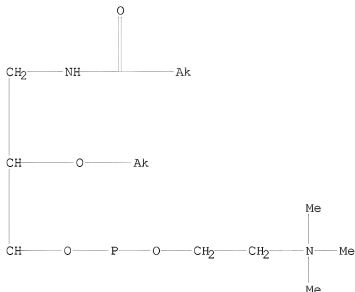
exact bonds :

1-2 1-6 6-9 12-13 13-14 14-15 15-16 15-17 15-18

Match level :

1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS  
10:CLASS 11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS 16:CLASS 17:CLASS  
18:CLASS

=> d 11  
 L1 HAS NO ANSWERS  
 L1 STR



Structure attributes must be viewed using STN Express query preparation.

=> s 11 full  
 FULL SEARCH INITIATED 11:39:24 FILE 'REGISTRY'  
 FULL SCREEN SEARCH COMPLETED - 166 TO ITERATE

100.0% PROCESSED 166 ITERATIONS 68 ANSWERS  
 SEARCH TIME: 00.00.01

L2 68 SEA SSS FUL L1

=> file medline caplus wpids uspatfull  
 COST IN U.S. DOLLARS  
 FULL ESTIMATED COST

SINCE FILE ENTRY	TOTAL SESSION
185.88	186.10

FILE 'MEDLINE' ENTERED AT 11:39:33 ON 21 JAN 2009

FILE 'CAPLUS' ENTERED AT 11:39:33 ON 21 JAN 2009  
 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
 PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
 COPYRIGHT (C) 2009 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'WPIDS' ENTERED AT 11:39:33 ON 21 JAN 2009  
 COPYRIGHT (C) 2009 THOMSON REUTERS

FILE 'USPATFULL' ENTERED AT 11:39:33 ON 21 JAN 2009  
 CA INDEXING COPYRIGHT (C) 2009 AMERICAN CHEMICAL SOCIETY (ACS)

=> s 12  
 SAMPLE SEARCH INITIATED 11:39:37 FILE 'WPIDS'  
 SAMPLE SCREEN SEARCH COMPLETED - 1 TO ITERATE

100.0% PROCESSED 1 ITERATIONS 1 ANSWERS  
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
BATCH \*\*COMPLETE\*\*  
PROJECTED ITERATIONS: 1 TO 40  
PROJECTED ANSWERS: 1 TO 40

L3 50 L2

=> d l3 1-50 ibib, abs, hitstr

L3 ANSWER 1 OF 50 MEDLINE on STN  
ACCESSION NUMBER: 1991202492 MEDLINE  
DOCUMENT NUMBER: PubMed ID: 2016713  
TITLE: In vitro evaluation of phosphocholine and quaternary ammonium containing lipids as novel anti-HIV agents.  
AUTHOR: Meyer K L; Marasco C J Jr; Morris-Natschke S L; Ishaq K S; Piantadosi C  
CORPORATE SOURCE: University of North Carolina, School of Pharmacy, Division of Medicinal Chemistry and Natural Products, Chapel Hill 27599.  
CONTRACT NUMBER: CA 12197 (United States NCI)  
CA 42216 (United States NCI)  
RR 05404 (United States NCRR)  
SOURCE: Journal of medicinal chemistry, (1991 Apr) Vol. 34, No. 4, pp. 1377-83.  
Journal code: 9716531. ISSN: 0022-2623.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: (COMPARATIVE STUDY)  
Journal; Article; (JOURNAL ARTICLE)  
(RESEARCH SUPPORT, NON-U.S. GOV'T)  
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals; AIDS  
ENTRY MONTH: 199105  
ENTRY DATE: Entered STN: 7 Jun 1991  
Last Updated on STN: 3 Feb 1997  
Entered Medline: 21 May 1991

AB A series of synthetic lipids containing a two- or three-carbon backbone substituted with a thio, oxy, or amidoalkyl functionality and either a phosphocholine or quaternary ammonium moiety was evaluated as potential anti-HIV-1 agents. Several analogues were identified as possessing activity with the most promising compound being rac-3-octadecanamido-2-ethoxypropylphosphocholine (8). Compound 8 exhibited an IC50 for the inhibition of plaque formation of 0.16 microM which was 84-fold lower than the IC50 value determined for CEM-SS cell growth inhibition. Initial mechanistic studies have indicated that these compounds, unlike AZT, are not reverse transcriptase (RT) inhibitors, but instead appear to inhibit a late step in HIV replication involving virus assembly and infectious virus production. Since these lipids are acting via a different mechanism, they represent an alternative approach to the chemotherapeutic treatment of AIDS as well as candidates for combination therapy with AZT.

L3 ANSWER 2 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 2008:493012 CAPLUS  
DOCUMENT NUMBER: 148:509885  
TITLE: Compositions and methods for treating neurological disorders or damage  
INVENTOR(S): Diamandis, Phedias; Tyers, Mike; Dirks, Peter B.  
PATENT ASSIGNEE(S): Can.

SOURCE: Can. Pat. Appl., 3pp.  
 DOCUMENT TYPE: CODEN: CPXXEB  
 LANGUAGE: Patent  
 FAMILY ACC. NUM. COUNT: 1 English  
 PATENT INFORMATION:

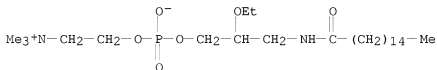
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CA 2606658	A1	20080413	CA 2007-2606658	20071012
PRIORITY APPLN. INFO.:			US 2006-851615P	P 20061013

AB The invention relates to a clonogenic neurosphere assay to carry out high throughput screens (HTS) to identify potent and/or selective modulators of proliferation, differentiation and/or renewal of neural precursor cells, neural progenitor cells and/or self-renewing and multipotent neural stem cells (NSCs). The invention also relates to compns. comprising the identified modulators and methods of using the modulators and compns., in particular to treat neurol. disorders (e.g. brain or CNS cancer) or damage.

IT 112989-01-2 112989-02-3  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (screening for compns. and methods for treating neurol. disorders or damage with modulators of neural stem cells)

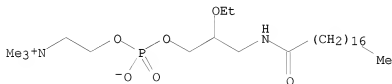
RN 112989-01-2 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,  
 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



RN 112989-02-3 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium,  
 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



L3 ANSWER 3 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2007:632247 CAPLUS

DOCUMENT NUMBER: 147:109095

TITLE: Synthesis, antifungal and antimicrobial activity of alkylphospholipids

AUTHOR(S): Obando, Daniel; Widmer, Fred; Wright, Lesley C.; Sorrell, Tania C.; Jolliffe, Katrina A.

CORPORATE SOURCE: School of Chemistry, The University of Sydney, 2006, Australia

SOURCE: Bioorganic & Medicinal Chemistry (2007), 15(15),

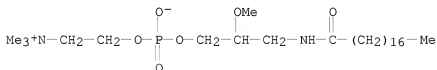
5158-5165  
 CODEN: BMECEP; ISSN: 0968-0896  
 PUBLISHER: Elsevier Ltd.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 147:109095

AB The antifungal, antibacterial and haemolytic activity of a series of alkylphosphocholines (e.g., miltefosine) and alkylglycerophosphocholines (e.g., edelfosine) has been investigated. These compound classes exhibit significant antifungal and moderate antibacterial activities. Several new alkylphosphocholine derivs. with amide or ester bonds in the alkyl chain have been synthesized. These compds. show much lower haemolytic activity than miltefosine. Alkylphosphocholines and alkylglycerophosphocholines show significant promise as novel orally available antifungal and antibacterial therapeutics.

IT 88876-07-7  
 RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (antifungal, antimicrobial and hemolytic activity of alkylphospholipids)

RN 88876-07-7 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-ammonium, 4-hydroxy-7-methoxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



REFERENCE COUNT: 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 4 OF 50 CAPLUS COPYRIGHT 2009 ACS ON STN

ACCESSION NUMBER: 2006:198407 CAPLUS  
 DOCUMENT NUMBER: 144:403777  
 TITLE: Using small molecules to overcome drug resistance induced by a viral oncogene  
 AUTHOR(S): Smukste, Inese; Bhalala, Oneil; Persico, Marco; Stockwell, Brent R.  
 CORPORATE SOURCE: Department of Biological Sciences and Department of Chemistry, Fairchild Center, Columbia University, New York, NY, 10027, USA  
 SOURCE: Cancer Cell (2006), 9(2), 133-146  
 CODEN: CCAECI; ISSN: 1535-6108  
 PUBLISHER: Cell Press  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

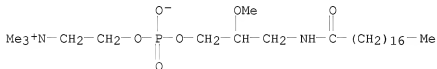
AB We used small mol. screening to discover compds. and mechanisms for overcoming E6 oncogene-mediated drug resistance. Using high-throughput screening in isogenic cell lines, we identified compds. that potentiate doxorubicin's lethality in E6-expressing colon cancer cells. Such compds. included quaternary ammonium salts, protein synthesis inhibitors, 11-deoxyprostaglandins, and two addnl. classes of compds.-analogs of 1,3-bis(4-morpholinylmethyl)-2-imidazolidinethione (a thiourea) and acylated secondary amines that we named indoxins. Indoxins upregulated topoisomerase II $\alpha$ , the target of doxorubicin, thereby increasing doxorubicin lethality. We developed a photolabeling strategy to identify targets of indoxin and discovered a nuclear actin-related protein complex

as a candidate indoxin target.

IT 88876-07-7  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (small mols. which overcome drug resistance induced by a viral oncogene)

RN 88876-07-7 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium, 4-hydroxy-7-methoxy-N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



REFERENCE COUNT: 58 THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 5 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:904330 CAPLUS

DOCUMENT NUMBER: 143:222464

TITLE: Phospholipids for the treatment of infection by togaviruses, herpes viruses and coronaviruses

INVENTOR(S): Fleming, Ronald A.; Hes, Jan V.; Huang, Yunsheng; Read, Russ H.; Morris-Natschke, Susan L.; Ishaq, Khalid S.; Kucera, Louis S.; Furman, Phillip A.

PATENT ASSIGNEE(S): Kucera Pharmaceutical Company, USA

SOURCE: U.S. Pat. Appl. Publ., 36 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20050187192	A1	20050825	US 2004-783927	20040220
PRIORITY APPLN. INFO.:			US 2004-783927	20040220

OTHER SOURCE(S): MARPAT 143:222464

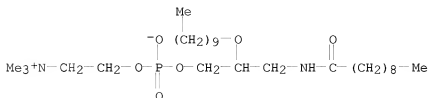
AB Provided are compds., methods and pharmaceutical compns. for treating a host, especially a human, infected with a togavirus, herpes virus and/or coronavirus, and in particular SARS-CoV, cytomegalovirus or varicella-zoster virus. The method in one embodiment comprises administering to that host an effective amount of an anti-togavirus, anti-herpes virus and/or anti-coronavirus phospholipid or a pharmaceutically acceptable salt or prodrug thereof. The phospholipid compound is, e.g., a 3-alkylamido-2-alkoxypropylphosphocholine compound or salt thereof. The compound may be administered alone or in combination and/or alternation with one or more other antiviral agents. The EC50 of an alkylamido-2-alkoxypropylphosphocholine against varicella zoster virus was 0.48 µg/mL.

IT 252371-27-0 443882-90-4 443882-91-5  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (phospholipids for treatment of infection by togaviruses, herpes viruses and coronaviruses)

RN 252371-27-0 CAPLUS

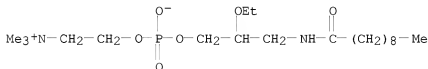
CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium,

7-(decyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)  
(CA INDEX NAME)



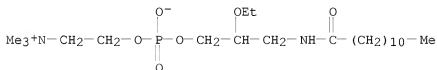
RN 443882-90-4 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium,  
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA  
INDEX NAME)



RN 443882-91-5 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA  
INDEX NAME)



L3 ANSWER 6 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:902611 CAPLUS

DOCUMENT NUMBER: 143:241938

TITLE: Methods and compositions for the treatment of  
respiratory syncytial virus

INVENTOR(S): Kucera, Louis S.; Morris-Natschke, Susan L.; Ishaq,  
Khalid S.; Fleming, Ronald A.; Hess, Jan V.; Huang,  
Yunsheng; Read, Russ H.; Furman, Phillip A.

PATENT ASSIGNEE(S): USA

SOURCE: U.S. Pat. Appl. Publ., 29 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20050187191	A1	20050825	US 2004-781894	20040220
WO 2005099719	A2	20051027	WO 2005-US3972	20050209
WO 2005099719	A3	20070322		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,



CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW  
 RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2004-781894 A 20040220

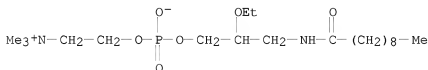
OTHER SOURCE(S): MARPAT 143:241938

AB The invention includes compds. useful for inhibiting RSV replication and treating a host infected with RSV. The invention also includes methods of treating a host infected with RSV by administering to the host an anti-RSV effective amount of a compound of the invention.

IT 443882-90-4, KPC 11 443882-91-5, KPC 15  
 RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (comps. for treatment of respiratory syncytial virus)

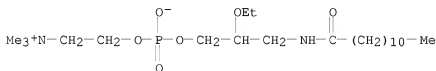
RN 443882-90-4 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



RN 443882-91-5 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



IT 207298-91-7 207298-93-9 252371-27-0

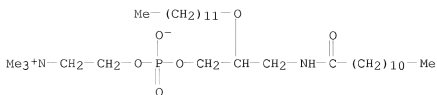
443882-96-0

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

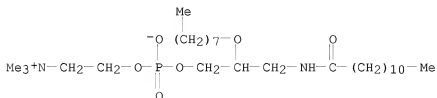
(comps. for treatment of respiratory syncytial virus)

RN 207298-91-7 CAPLUS

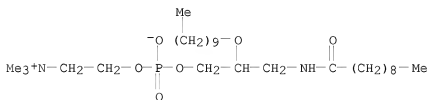
CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-(dodecyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



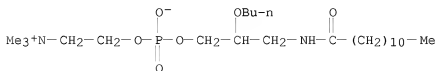
RN 207298-93-9 CAPLUS  
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
 4-hydroxy-N,N,N-trimethyl-7-(octyloxy)-10-oxo-, inner salt, 4-oxide (9CI)  
 (CA INDEX NAME)



RN 252371-27-0 CAPLUS  
 CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium,  
 7-(decyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)  
 (CA INDEX NAME)



RN 443882-96-0 CAPLUS  
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
 7-butoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA  
 INDEX NAME)



L3 ANSWER 7 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 2002:392356 CAPLUS  
 DOCUMENT NUMBER: 137:119058  
 TITLE: Structure-Activity Relationship for Enhancement of  
 Paracellular Permeability across Caco-2 Cell  
 Monolayers by 3-Alkylamido-2-  
 alkoxypropylphosphocholines  
 AUTHOR(S): Ouyang, Hui; Morris-Natschke, Susan L.; Ishaq, Khalid

S.; Ward, Peter; Liu, Dongzhou; Leonard, Sarah; Thakker, Dhiren R.  
 CORPORATE SOURCE: Divisions of Medicinal Chemistry and Natural Products and Drug Delivery and Disposition School of Pharmacy and Department of Pharmacology School of Medicine, The University of North Carolina at Chapel Hill, Chapel Hill, NC, 27599, USA  
 SOURCE: Journal of Medicinal Chemistry (2002), 45(13), 2857-2866  
 CODEN: JMCMAR; ISSN: 0022-2623  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 137:119058

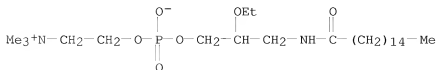
AB Paracellular permeability enhancers have been used to improve the oral bioavailability of hydrophilic drugs; however, the mechanism of action of many enhancers is poorly understood. In this study, highly potent enhancers of paracellular permeability were identified in the 3-alkylamido-2-alkoxypropylphosphocholine series, and a structure-activity relationship was developed for enhancement of paracellular permeability across Caco-2 cell monolayers. Compds. with short (<5 carbons) hydrocarbon chains at both C-2 and C-3 were generally inactive. The potency exhibited a parabolic relationship with respect to the chain length at either C-2 or C-3. Linear mols. (i.e., compds. with a short hydrocarbon chain at C-2 or C-3 and a long hydrocarbon chain on C-3 or C-2, resp.) were more potent than the corresponding branched mols. with the same carbon load. The efficacy of 3-alkylamido-2-alkoxypropylphosphocholines as enhancers of paracellular permeability was not dependent on their existence in micellar form or their ability to alter the fluidity of cell membrane. Previously, a correlation between the potency of alkylphosphocholines as enhancers of paracellular permeability and the inhibitors of phospholipase C (PLC) was established in Madine Darby canine kidney (MDCK) cell monolayers. The potencies of selected 3-alkylamido-2-alkoxypropylphosphocholines as inhibitors of PLC and enhancers of paracellular permeability fit well into this correlation. Therefore, phosphocholines are likely to increase paracellular permeability by modulating the signal transduction pathway initiated by a PLC-catalyzed reaction rather than by phys. altering the cell membrane.

IT 112989-01-2 149576-20-5 207298-91-7  
 207298-92-8 207298-93-9 207298-94-0  
 207298-95-1 207298-97-3 207298-99-5  
 252371-26-9 252371-27-0 443883-01-0

RL: PAC (Pharmacological activity); BIOL (Biological study)  
 (structure-activity relationship for enhancement of paracellular permeability across Caco-2 cell monolayers by 3-alkylamido-2-alkoxypropylphosphocholines)

RN 112989-01-2 CAPLUS

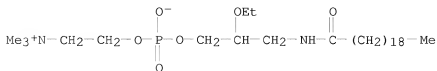
CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,  
 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



RN 149576-20-5 CAPLUS

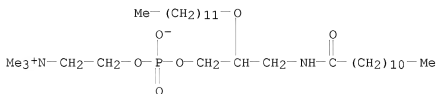
CN 3,5-Dioxa-9-aza-4-phosphanonacosan-1-aminium,

7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



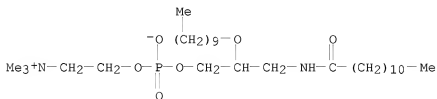
RN 207298-91-7 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-(dodecyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide  
(9CI) (CA INDEX NAME)



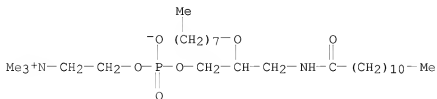
RN 207298-92-8 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-(decyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)  
(CA INDEX NAME)



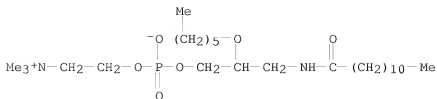
RN 207298-93-9 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
4-hydroxy-N,N,N-trimethyl-7-(octyloxy)-10-oxo-, inner salt, 4-oxide (9CI)  
(CA INDEX NAME)



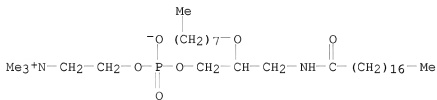
RN 207298-94-0 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-(hexyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)  
(CA INDEX NAME)



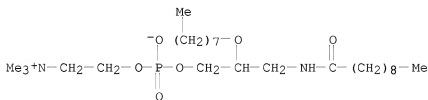
RN 207298-95-1 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium,  
4-hydroxy-N,N,N-trimethyl-7-(octyloxy)-10-oxo-, inner salt, 4-oxide (9CI)  
(CA INDEX NAME)



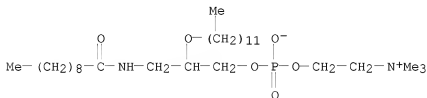
RN 207298-97-3 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium,  
4-hydroxy-N,N,N-trimethyl-7-(octyloxy)-10-oxo-, inner salt, 4-oxide (9CI)  
(CA INDEX NAME)



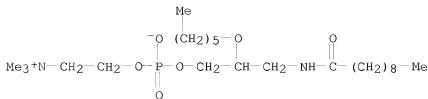
RN 207298-99-5 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium,  
7-(dodecyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide  
(9CI) (CA INDEX NAME)



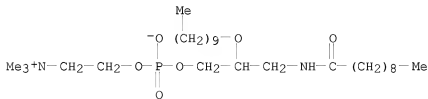
RN 252371-26-9 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium,  
7-(hexyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)  
(CA INDEX NAME)



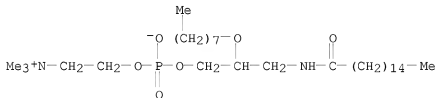
RN 252371-27-0 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium,  
7-(decyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)  
(CA INDEX NAME)



RN 443883-01-0 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,  
4-hydroxy-N,N,N-trimethyl-7-(octyloxy)-10-oxo-, inner salt, 4-oxide (9CI)  
(CA INDEX NAME)

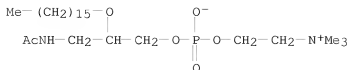


IT 108910-26-5P 112989-02-3P 443882-90-4P  
443882-91-5P 443882-92-6P 443882-93-7P  
443882-94-8P 443882-95-9P 443882-96-0P  
443882-97-1P 443882-98-2P 443883-00-9P  
443883-02-1P 443883-03-2P 443883-04-3P  
443883-06-5P 443883-08-7P 443883-10-1P  
443883-11-2P 443883-13-4P 443883-14-5P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL  
(Biological study); PREP (Preparation)  
(structure-activity relationship for enhancement of paracellular  
permeability across Caco-2 cell monolayers by  
3-alkylamido-2-alkoxypropylphosphocholines)

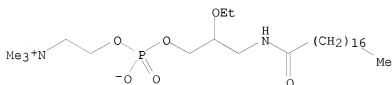
RN 108910-26-5 CAPLUS

CN Ethanaminium, 2-[[[3-(acetylamino)-2-(  
hexadecyloxy)propoxy]hydroxyphosphinyl]oxy]-N,N,N-trimethyl-, inner salt  
(CA INDEX NAME)



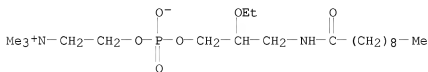
RN 112989-02-3 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium,  
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



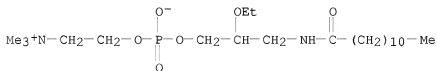
RN 443882-90-4 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium,  
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



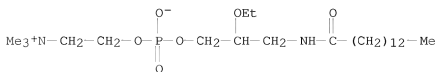
RN 443882-91-5 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



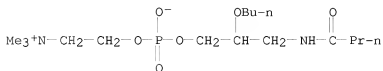
RN 443882-92-6 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphatricosan-1-aminium,  
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

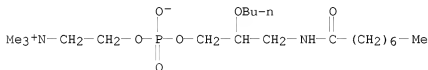


RN 443882-93-7 CAPLUS

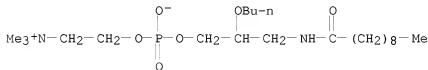
CN 3,5-Dioxa-9-aza-4-phosphatridecan-1-aminium,  
7-butoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA  
INDEX NAME)



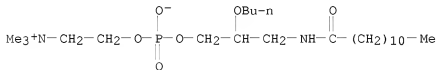
RN 443882-94-8 CAPLUS  
CN 3,5-Dioxa-9-aza-4-phosphaheptadecan-1-aminium,  
7-butoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA  
INDEX NAME)



RN 443882-95-9 CAPLUS  
CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium,  
7-butoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA  
INDEX NAME)

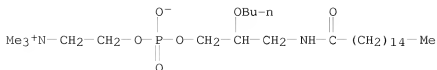


RN 443882-96-0 CAPLUS  
CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-butoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA  
INDEX NAME)



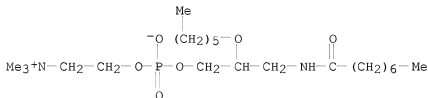
RN 443882-97-1 CAPLUS  
CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,  
7-butoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA  
INDEX NAME)





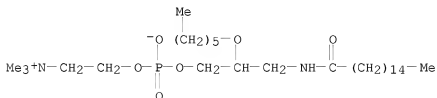
RN 443882-98-2 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheptadecan-1-aminium,  
7-(hexyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)  
(CA INDEX NAME)



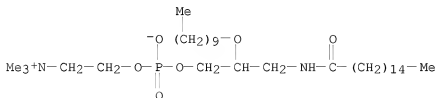
RN 443883-00-9 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,  
7-(hexyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)  
(CA INDEX NAME)



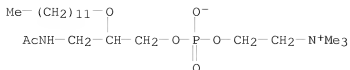
RN 443883-02-1 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,  
7-(decyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)  
(CA INDEX NAME)



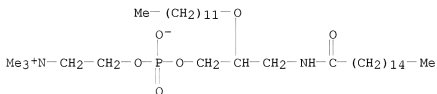
RN 443883-03-2 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaundecan-1-aminium,  
7-(dodecyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide  
(9CI) (CA INDEX NAME)



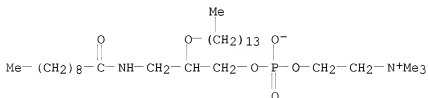
RN 443883-04-3 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,  
7-(dodecyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide  
(9CI) (CA INDEX NAME)



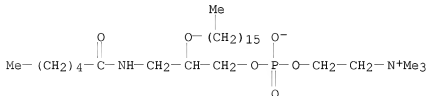
RN 443883-06-5 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium,  
4-hydroxy-N,N,N-trimethyl-10-oxo-7-(tetradecyloxy)-, inner salt, 4-oxide  
(9CI) (CA INDEX NAME)



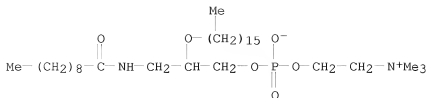
RN 443883-08-7 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphapentadecan-1-aminium,  
7-(hexadecyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide  
(9CI) (CA INDEX NAME)



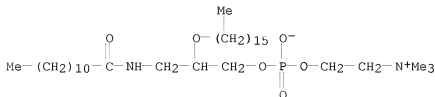
RN 443883-10-1 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium,  
7-(hexadecyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide  
(9CI) (CA INDEX NAME)



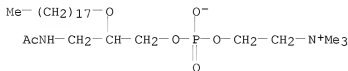
RN 443883-11-2 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-(hexadecyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide  
(9CI) (CA INDEX NAME)



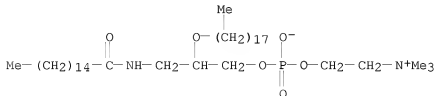
RN 443883-13-4 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaundecan-1-aminium,  
4-hydroxy-N,N,N-trimethyl-7-(octadecyloxy)-10-oxo-, inner salt, 4-oxide  
(9CI) (CA INDEX NAME)



RN 443883-14-5 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,  
4-hydroxy-N,N,N-trimethyl-7-(octadecyloxy)-10-oxo-, inner salt, 4-oxide  
(9CI) (CA INDEX NAME)



REFERENCE COUNT: 59 THERE ARE 59 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 8 OF 50 CAPLUS COPYRIGHT 2009 ACS ON STN

ACCESSION NUMBER: 1999:655362 CAPLUS

DOCUMENT NUMBER: 132:40418

TITLE: Structure-Activity Relationships for Enhancement of  
Paracellular Permeability by  
2-Alkoxy-3-alkylamidopropylphosphocholines across

Caco-2 Cell Monolayers

AUTHOR(S): Liu, Dong-Zhou; Morris-Natschke, Susan L.; Kucera, Louis S.; Ishaq, Khalid S.; Thakker, Dhiren R.

CORPORATE SOURCE: Division of Drug Delivery and Disposition and Division of Medicinal Chemistry and Natural Products School of Pharmacy, University of North Carolina at Chapel Hill, Chapel Hill, NC, 27599-7360, USA

SOURCE: Journal of Pharmaceutical Sciences (1999), 88(11), 1169-1174  
CODEN: JPMSAE; ISSN: 0022-3549

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

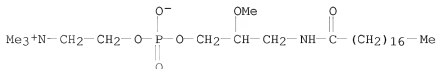
AB The oral route is the preferred route of delivery for a large number of drug mols. However, the intestinal epithelium presents a formidable barrier for delivery of drugs into systemic circulation. Phospholipids are among compds. that enhance the absorption of drugs across the intestinal epithelium. In this paper, we describe structure-activity relationships for phospholipid derivs. as enhancers of paracellular permeability across Caco-2 cell monolayers. In a series of 2-alkoxy-3-alkylamidopropylphosphocholine derivs., compds. with a long chain at C-3 (R3) and short chain at C-2 (R2) were potent in causing a decrease in transepithelial elec. resistance (TEER) and an increase in mannitol transport, but also showed significant cytotoxicity. Compds. with 9-11 carbons at C-3 and 6-10 carbons at C-2 provided good separation (up to 2.7-fold) between activity and cytotoxicity. Notably, a good correlation ( $r^2 = 0.93$ ) was observed between EC50 (TEER) [concentration that caused a drop in TEER to 50% of its control (untreated) value] and EC10+ (mannitol) [concentration that caused 10-fold increase in mannitol transport over the control (untreated) value], confirming that a decrease in TEER is associated with enhanced permeability of the hydrophilic compds. across Caco-2 cell monolayers. Compds. with medium to long carbon chains at C-2 and C-3, and the total carbons in the alkyl chains > 20, showed poor activity and no cytotoxicity.

IT 88876-07-7 112989-02-3 149576-20-5  
207298-91-7 207298-92-8 207298-93-9  
207298-95-1 207298-99-5 252371-25-8  
252371-26-9 252371-27-0

RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (structure-activity relationships for enhancement of paracellular permeability by 2-alkoxy-3-alkylamidopropylphosphocholines across Caco-2 cell monolayers)

RN 88876-07-7 CAPLUS

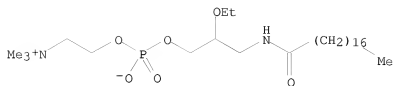
CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium, 4-hydroxy-7-methoxy-N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



RN 112989-02-3 CAPLUS

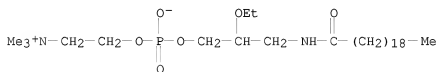
CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium, 7-ethoxy-4-hydroxy-N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)

NAME)



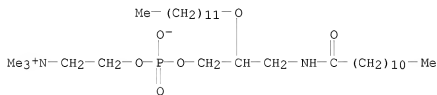
RN 149576-20-5 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphanonacosan-1-aminium,  
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA  
INDEX NAME)



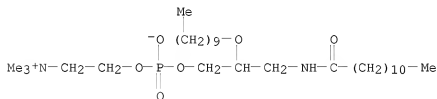
RN 207298-91-7 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-(dodecyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide  
(9CI) (CA INDEX NAME)



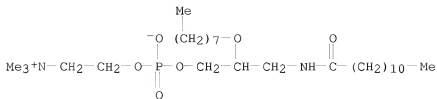
RN 207298-92-8 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-(decyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)  
(CA INDEX NAME)

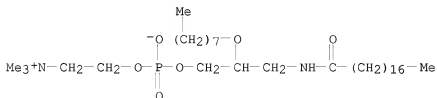


RN 207298-93-9 CAPLUS

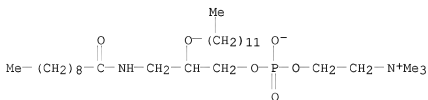
CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
4-hydroxy-N,N,N-trimethyl-7-(octyloxy)-10-oxo-, inner salt, 4-oxide (9CI)  
(CA INDEX NAME)



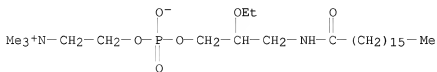
RN 207298-95-1 CAPLUS  
 CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium,  
 4-hydroxy-N,N,N-trimethyl-7-(octyloxy)-10-oxo-, inner salt, 4-oxide (9CI)  
 (CA INDEX NAME)



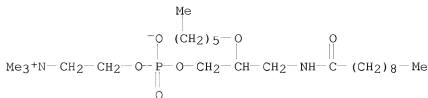
RN 207298-99-5 CAPLUS  
 CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium,  
 7-(dodecyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide  
 (9CI) (CA INDEX NAME)



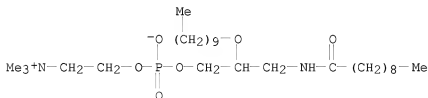
RN 252371-25-8 CAPLUS  
 CN 3,5-Dioxa-9-aza-4-phosphahexacosan-1-aminium,  
 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA  
 INDEX NAME)



RN 252371-26-9 CAPLUS  
 CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium,  
 7-(hexyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)  
 (CA INDEX NAME)



RN 252371-27-0 CAPLUS  
 CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium,  
 7-(decyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)  
 (CA INDEX NAME)



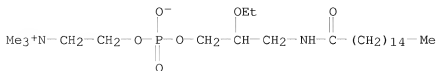
REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 9 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 1998:435743 CAPLUS  
 DOCUMENT NUMBER: 129:90448  
 ORIGINAL REFERENCE NO.: 129:18491a,18494a  
 TITLE: Method of treating hepatitis virus infections  
 INVENTOR(S): Kucera, Louis S.; Morris-Natschke, Susan L.  
 PATENT ASSIGNEE(S): Wake Forest University, USA; University of North  
 Carolina  
 SOURCE: U.S., 17 pp., Cont.-in-part of U. S. Ser. No. 74,943,  
 abandoned.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5770584	A	19980623	US 1995-465947	19950606
US 6030960	A	20000229	US 1998-102308	19980622
PRIORITY APPLN. INFO.:			US 1993-74943	B2 19930610
			US 1995-465947	A3 19950606

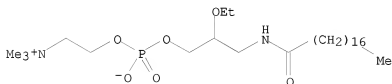
OTHER SOURCE(S): MARPAT 129:90448  
 AB A method of treating hepatitis virus infection is disclosed. The method  
 involves administering to a human subject in need of such treatment an  
 effective hepatitis virus-combating amount of an alkyl lipid or alkyl lipid  
 derivative  
 IT 112989-01-2P 112989-02-3P 209532-02-5P  
 209532-03-6P  
 RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological  
 study); PREP (Preparation); USES (Uses)  
 (alkyl lipids for treating hepatitis virus infections)  
 RN 112989-01-2 CAPLUS  
 CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,

7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



RN 112989-02-3 CAPLUS

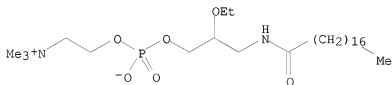
CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium,  
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



RN 209532-02-5 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium,  
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide, (+)-(9CI) (CA INDEX NAME)

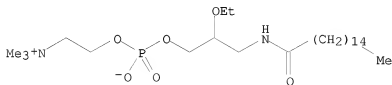
Rotation (+).



RN 209532-03-6 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,  
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide, (+)-(9CI) (CA INDEX NAME)

Rotation (+).



REFERENCE COUNT: 67 THERE ARE 67 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 10 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1998:205430 CAPLUS

DOCUMENT NUMBER: 128:316940

ORIGINAL REFERENCE NO.: 128:62637a,62640a



TITLE: In vitro evaluation and characterization of newly designed alkylamidophospholipid analogs as anti-human immunodeficiency virus type 1 agents

AUTHOR(S): Kucera, L. S.; Iyer, N.; Morris-Natschke, S. L.; Chen, S. Y.; Gumus, F.; Ishaq, K.; Herrmann, D. B. J.

CORPORATE SOURCE: Wake Forest University School Medicine, Winston-Salem, NC, USA

SOURCE: Antiviral Chemistry & Chemotherapy (1998), 9(2), 157-165

PUBLISHER: CODEN: ACCHEH; ISSN: 0956-3202

DOCUMENT TYPE: International Medical Press

LANGUAGE: Journal

AB English

AB Our labs. first reported two novel classes of complex synthetic lipids, including alkylamidophosphocholines (PC lipid; CP-51) and alkylamidophosphate ester-linked lipid-AZT conjugates (lipid-AZT conjugates; CP-92), with selective and potent activity against human immunodeficiency virus type 1 (HIV-1). To extend these observations, we synthesized addnl. PC lipids and lipid-AZT conjugates (INK and INK-AZT conjugate) to evaluate their structure-activity relationships by testing for selectivity against infectious wild-type (wt) and drug-resistant HIV-1 replication, virus fusogenic activity and toxicity replication, virus fusogenic activity and toxicity for mouse bone marrow cells. PC lipid compds. with medium chain lengths at positions 1 and 2 gave an improved selective index (SI). INK-3, with 12 and 8 carbons and INK-15, with 10 and 12 carbons were among the most selective when evaluated in CEM-SS cells. INK-14, a lipid-AZT conjugate where AZT replaced the choline in PC lipid INK-3, gave the highest SI of >1250 against both infectious wt HIV-1 replication in CEM-SS cells and a clin. isolate in peripheral blood leukocytes. Notably, the PC lipid compds. INK-3 and INK-15, but not the lipid-AZT conjugate INK-14, were potent inhibitors of matched pairs of AZT-sensitive and AZT-resistant HIV-1 clin. isolates. INK-3 also inhibited replication of HIV-2 and TIBO-resistant HIV-1, and inhibited HIV-1-mediated fusogenic activity by 78, 41 and 9% in a dose-dependent manner. The TC50 for mouse bone marrow cells was >100 µg/mL for CP-51 and 0.142-0.259 µg/mL for AZT. These data suggest that optimum PC lipid compds. are significantly less toxic than AZT and have high potential as novel therapeutic agents for AIDS.

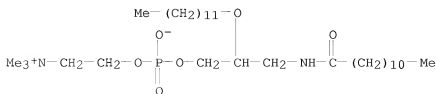
IT 207298-91-7P 207298-92-8P 207298-93-9P  
207298-94-0P 207298-95-1P 207298-97-3P  
207298-99-5P

RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

RN (anti-HIV-1 activity and preparation of alkylamidophospholipid analogs)

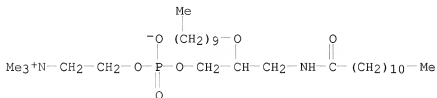
RN 207298-91-7 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-(dodecyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide  
(9CI) (CA INDEX NAME)

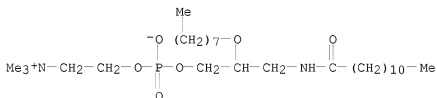


RN 207298-92-8 CAPLUS

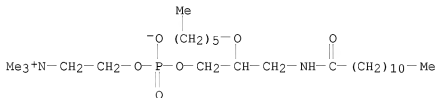
CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-(decyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)  
(CA INDEX NAME)



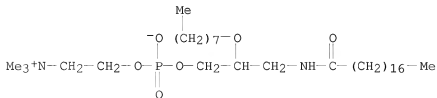
RN 207298-93-9 CAPLUS  
CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
4-hydroxy-N,N,N-trimethyl-7-(octyloxy)-10-oxo-, inner salt, 4-oxide (9CI)  
(CA INDEX NAME)



RN 207298-94-0 CAPLUS  
CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-(hexyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)  
(CA INDEX NAME)

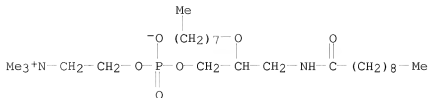


RN 207298-95-1 CAPLUS  
CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
4-hydroxy-N,N,N-trimethyl-7-(octyloxy)-10-oxo-, inner salt, 4-oxide (9CI)  
(CA INDEX NAME)



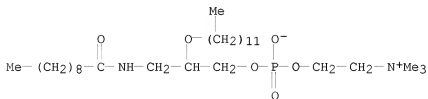
RN 207298-97-3 CAPLUS  
CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium,  
4-hydroxy-N,N,N-trimethyl-7-(octyloxy)-10-oxo-, inner salt, 4-oxide (9CI)

(CA INDEX NAME)



RN 207298-99-5 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium,  
7-(dodecyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide  
(9CI) (CA INDEX NAME)



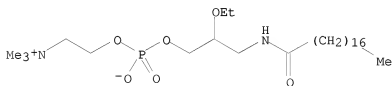
IT 112989-02-3, CP 51

RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(anti-HIV-1 activity and preparation of alkylamidophospholipid analogs)

RN 112989-02-3 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium,  
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 11 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1996:388263 CAPLUS

DOCUMENT NUMBER: 125:49273

ORIGINAL REFERENCE NO.: 125:9233a,9236a

TITLE: Lipid analogs for treating viral infections

INVENTOR(S): Kucera, Louis S.; Morris-Natschke, Susan L.; Ishaq, Khalid S.

PATENT ASSIGNEE(S): Wake Forest University, USA; Univ. of North Carolina at Chapel Hill

SOURCE: PCT Int. Appl., 53 pp.

CODEN: PIXXD2

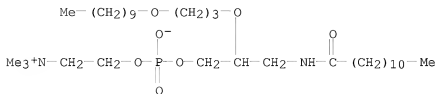
DOCUMENT TYPE: Patent

LANGUAGE: English

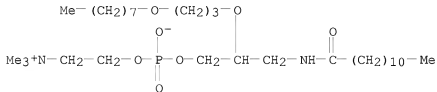
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9606620	A2	19960307	WO 1995-US10111	19950807
WO 9606620	A3	19960613		
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT				
RW: KE, KW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2197319	A1	19960307	CA 1995-2197319	19950807
AU 9532166	A	19960322	AU 1995-32166	19950807
EP 781138	A2	19970702	EP 1995-928365	19950807
EP 781138	B1	20080521		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
JP 10506619	T	19980630	JP 1995-508773	19950807
EP 1852121	A2	20071107	EP 2007-16369	19950807
EP 1852121	A3	20071121		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
AT 395922	T	20080615	AT 1995-928365	19950807
US 5962437	A	19991005	US 1997-793470	19970502
US 7129227	B1	20061031	US 1999-412539	19991004
US 20040259845	A1	20041223	US 2004-889127	20040713
US 7135584	B2	20061114		
US 20050080050	A1	20050414	US 2004-943923	20040920
US 7141557	B2	20061128		
JP 2007056033	A	20070308	JP 2006-278049	20061011
US 20070099870	A1	20070503	US 2006-588313	20061027
US 7294621	B2	20071113		
US 20070105811	A1	20070510	US 2006-588308	20061027
US 7294619	B2	20071113		
US 20070105812	A1	20070510	US 2006-588311	20061027
US 7294620	B2	20071113		
US 20080293667	A1	20081127	US 2007-980819	20071031
PRIORITY APPLN. INFO.:				
US 1994-297416 A 19940829				
US 1994-314901 A 19940929				
EP 1995-928365 A3 19950807				
JP 1996-508773 A3 19950807				
WO 1995-US10111 W 19950807				
US 1997-793470 A3 19970502				
US 1999-412539 B1 19991004				
US 1999-412253 A1 19991005				
US 2004-889127 A3 20040713				
US 2004-943923 A3 20040920				
US 2006-588313 A3 20061027				
OTHER SOURCE(S): MARPAT 125:49273				
AB	A method of treating viral infections, in particular with HIV-1, hepatitis B virus, and herpes viruses, is disclosed. The method comprising administering to a subject in need of such treatment an infection-combating amount of a phospholipid or phospholipid derivative. For example, 1-dodecanamido-2-decylpropyl-3-phosphocholine showed IC50 value of 0.14 µM against HIV-1 syncytial plaque formation.			
IT	178172-98-0 178172-99-1 178173-00-7 178173-01-8			
	RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)			
	(phospholipids for treating viral infections and tumors)			

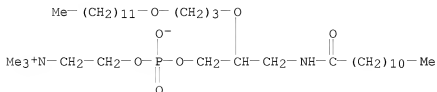
RN 178172-98-0 CAPLUS  
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
 7-[3-(decyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,  
 4-oxide (9CI) (CA INDEX NAME)



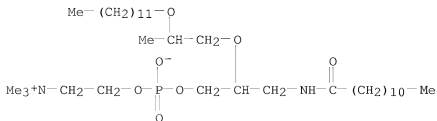
RN 178172-99-1 CAPLUS  
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
 4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt,  
 4-oxide (9CI) (CA INDEX NAME)



RN 178173-00-7 CAPLUS  
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
 7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,  
 4-oxide (9CI) (CA INDEX NAME)



RN 178173-01-8 CAPLUS  
 CN Ethanaminium, 2-[[[2-[2-(dodecyloxy)propoxy]-3-[(1-oxododecyl)amino]propoxy]hydroxyphosphinyl]oxy]-N,N,N-trimethyl-, inner salt (CA INDEX NAME)



L3 ANSWER 12 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1995:701769 CAPLUS

DOCUMENT NUMBER: 123:112632

ORIGINAL REFERENCE NO.: 123:20141a,20144a

TITLE: Phospholipids for combating hepatitis B virus infection

INVENTOR(S): Kucera, Louis S.; Morris-Natschke, Susan L.

PATENT ASSIGNEE(S): Wake Forest University, USA; University of North Carolina

SOURCE: PCT Int. Appl., 38 pp.

CODEN: PIXXD2

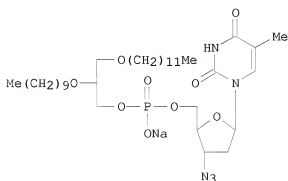
DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9428908	A2	19941222	WO 1994-US5855	19940525
WO 9428908	A3	19950323		
W: AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, GE, HU, JP, KG, KP, KR, KZ, LK, LU, LV, MD, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, US, UZ, VN				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2164717	A1	19941222	CA 1994-2164717	19940525
AU 9470448	A	19950103	AU 1994-70448	19940525
EP 702556	A1	19960327	EP 1994-919231	19940525
EP 702556	B1	20021023		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
AT 226437	T	20021115	AT 1994-919231	19940525
PRIORITY APPLN. INFO.:				
			US 1993-74943	A 19930610
			WO 1994-US5855	W 19940525
OTHER SOURCE(S): MARPAT 123:112632				
GI				

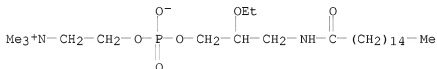


I

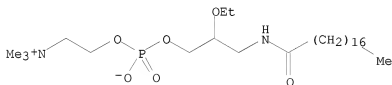
AB A method of treating infection with hepatitis B virus is disclosed. The method comprises administration of alkyl ether phospholipids and derivs. of formula DCH2XCH2YR1 [Y = S, O, NH, NMe, NHCO, NMeCO; R1 = (un)branched (un)saturated C10-20 alk(en/yn)yl; X = bond, CH2 (un)substituted by OH, alkyl, alkoxy, or alkylthio; D = (PO4)-E, N+R5R6FW Z-; E = (mono/di/trialkyl)ammonioalkyl or a nucleic acid base conjugate; F = alkylene; R5, R6 = H, alkyl; W = OH, SH; Z- = anion]. Several compds.

were prepared For example, etherification of isopropylideneglycerol with 1-bromododecane using KOH in PhMe and acid hydrolysis with HCl in MeOH-Et2O mixture gave 71% 3-dodecyloxy-1,2-propanediol. This underwent 1-O-tritylation with Ph3CCl in pyridine, 2-O-alkylation by 1-bromododecane and NaH in THF (51%), and detritylation by p-MeC6H4SO3H in CHCl3-MeOH (63%) to give 3-dodecyloxy-2-decyloxy-1-propanol. The latter underwent esterification with (PhO)2P(O)Cl (60%), hydrogenolysis of the Ph ester to the phosphatidic acid, and reesterification with AZT using DCC (22%) to give title compound (Na salt) 1. Another compound, (±)-3-octadecanamido-2-ethoxypropyl-1-phosphocholine, inhibited HBV virion DNA and intracellular RI HBV DNA in expts. to a comparable or greater extent than the standard agent ddC.

IT 112989-01-2P 112989-02-3P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (preparation of phospholipids for combating hepatitis B virus)  
 RN 112989-01-2 CAPLUS  
 CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



RN 112989-02-3 CAPLUS  
 CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



L3 ANSWER 13 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 1995:694404 CAPLUS  
 DOCUMENT NUMBER: 123:160151  
 ORIGINAL REFERENCE NO.: 123:28207a, 28210a  
 TITLE: Membrane-interactive phospholipids inhibit HIV type 1-induced cell fusion and surface gp160/ gp120 binding to monoclonal antibody  
 AUTHOR(S): Krugner-Higby, Lisa; Goff, David; Edwards, Terri; Iyer, Nathan; Neufeld, Jay; Kute, Timothy; Morris-Natschke, Susan; Ishaq, Khalid; Piantadosi, Claude; Kucera, Louis S.  
 CORPORATE SOURCE: Wake Forest University, Winsto-Salem, NC, 27157-1064, USA  
 SOURCE: AIDS Research and Human Retroviruses (1995), 11(6), 705-12  
 CODEN: ARHRE7; ISSN: 0889-2229  
 PUBLISHER: Liebert

DOCUMENT TYPE: Journal  
LANGUAGE: English

AB Membrane-interactive phospholipids (PLs), previously evaluated for activity against HIV-1 in vitro, are known to affect late steps in viral replication. Studies were done to determine the effects of PL analogs on post-translational processing of HIV-1 proteins, binding of viral surface gp160/gp120 to CD4 receptor, and HIV-1-induced cell fusion. Results of this investigation indicated that PL alone (1-octadecanamido-2-ethoxypropyl-rac-3-phosphocholine, CP-51) and PL-AZT conjugate (1-octadecanamido-2-ethoxypropyl-rac-3-phospho-3'-azido-3'-deoxythymidine, CP-92) have no effect on HIV-1-induced syntheses or processing of gp160/gp120, pr51, p24, or p17 (including myristoylation) in infected cells. Progeny HIV-1 particles made in CP-92-treated H9IIIB cells contained gp120, pr51, and p24; however, these virus particles had reduced capacity to bind to CD4+ cells. Both CP-51 and CP-92 inhibited syncytium (cell fusion) formation between treated HIV-1-infected cells and uninfected CD4+ cells, and, they reduced HIV-1 gp160/gp120 binding to CD4+ cells and monoclonal antibody. These results suggest that anti-HIV-1 activity of PL compds. involves alteration of cell surface membranes and viral envelopes. Phospholipid compds. are a novel class of membrane interactive compds. with potential use in blocking the spread of HIV-1 infection and pathogenesis in AIDS.

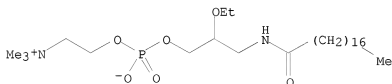
IT 112989-02-3, CP 51

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(membrane-interactive phospholipids inhibit HIV type 1-induced cell fusion and surface gp160/ gp120 binding to monoclonal antibody)

RN 112989-02-3 CAPLUS

CN 3,5-Dioxo-9-aza-4-phosphaheptacosan-1-aminium,  
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



L3 ANSWER 14 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1994:289590 CAPLUS

DOCUMENT NUMBER: 120:289590

ORIGINAL REFERENCE NO.: 120:50755a, 50758a

TITLE: Superoxide production by macrophages stimulated in vivo with synthetic ether lipids

AUTHOR(S): Schreiber, Barbara M.; Layne, Matthew D.; Modest, Edward J.

CORPORATE SOURCE: Sch. Med., Boston Univ., Boston, MA, 02118, USA

SOURCE: Lipids (1994), 29(4), 237-42

CODEN: LPDSAP; ISSN: 0024-4201

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The anticancer activity of synthetic ether lipids may depend in part upon their ability to activate cells of the monocyte/macrophage lineage. In the present study, the authors have sought to determine whether 1-O-octadecyl-2-O-methyl-rac-glycero-3-phosphocholine (ET-18-OMe) and related ether lipids enhance superoxide production by mouse peritoneal macrophages. Ether lipids were administered i.p. to C57BL/6 mice 4 days



after injection with thioglycollate broth. Elicited peritoneal macrophages were harvested and purified one day later, and superoxide production was detected by measuring the superoxide dismutase inhibitable reduction of cytochrome c. Low levels of superoxide were secreted by macrophages in the absence of phorbol 12-myristate 13-acetate (PMA). When PMA was added in vitro to macrophages from ET-18-OMe-treated mice, these cells secreted 194.2 nmol superoxide/mg protein in comparison to 53.5 nmol superoxide/mg protein for PMA-treated control cells. The in vitro treatment of the macrophages with ET-18-OMe was not effective in stimulating superoxide secretion. Macrophages harvested from mice treated with a series of ether lipids (with and without phosphorus) were examined, and superoxide secretion was found to vary with structure. AM-18-OEt and CP-7 were the most effective compds., secreting 8.6 and 11.9 times more superoxide, resp., than PMA-stimulated control cells. Moreover, direct cytotoxicity of the compds. for HL60 human promyelocytic leukemic cells did not necessarily correlate with the ability of each drug to increase macrophage superoxide production

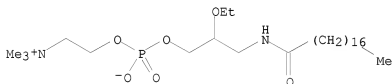
IT 112989-02-3

RL: BIOL (Biological study)

(superoxide formation by macrophages response to, cytotoxicity in relation to, in human and laboratory animal cells)

RN 112989-02-3 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium,  
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



L3 ANSWER 15 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1993:640914 CAPLUS

DOCUMENT NUMBER: 119:240914

ORIGINAL REFERENCE NO.: 119:42662h, 42663a

TITLE: Effects of structural modifications of ether lipids on antiproliferative activity against human glioma cell lines

AUTHOR(S): Berens, Michael E.; Bar-Shira, Enav; Rosenblum, Mark L.; Piantadosi, Claude; Modest, Edward J.

CORPORATE SOURCE: Sch. Med., Univ. California, San Francisco, CA, 94143, USA

SOURCE: Anticancer Research (1993), 13(2), 401-5

CODEN: ANTRD4; ISSN: 0250-7005

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The effect of structural modifications of ether lipids on antiproliferative activity was studied in four human glioma cell lines. Drug potency, determined by microtetrazolium assay, varied 7- to 30-fold. CP 46,665 was most potent; Amido-18-OEt was least potent. Antiproliferative activity was highly dependent on drug exposure time. Except for CP 46,665, which reached maximal activity after 2 h, 40  $\mu$ M ether lipids were effective only after 24 h. Structural modifications of ether lipids can increase their potency and reduce the time required for antiproliferative activity. Ether lipid analogs may be useful for treating human gliomas.

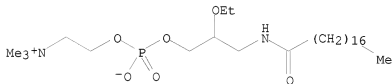
IT 112989-02-3

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(antiproliferative activity of, against human glioma cell lines, structure in relation to)

RN 112989-02-3 CAPLUS

CN 3,5-Dioxo-9-aza-4-phosphaheptacosan-1-aminium,  
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



L3 ANSWER 16 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1993:539633 CAPLUS

DOCUMENT NUMBER: 119:139633

ORIGINAL REFERENCE NO.: 119:25071a,25074a

TITLE: Synthesis of phosphocholine and quaternary amine ether lipids and evaluation of in vitro antineoplastic activity

AUTHOR(S): Morris-Natschke, Susan L.; Gumus, Fatma; Marasco, Canio J., Jr.; Meyer, Karen L.; Marx, Michael; Piantadosi, Claude; Layne, Matthew D.; Modest, Edward J.

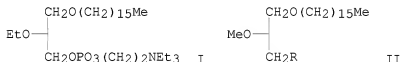
CORPORATE SOURCE: Sch. Pharm., Univ. North Carolina, Chapel Hill, NC, 27599, USA

SOURCE: Journal of Medicinal Chemistry (1993), 36(14), 2018-25  
CODEN: JMCMAR; ISSN: 0022-2623

DOCUMENT TYPE: Journal

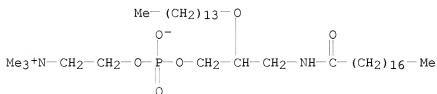
LANGUAGE: English

GI

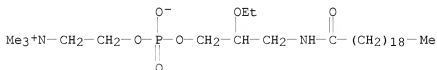


AB The in vitro antineoplastic activity of phosphocholines, e.g. I, and quaternary amine ether lipids, e.g. II (R = 3-hydroxymethylpyridinium bromide), has been evaluated in the HL-60 promyelocytic cell line. These compds. are analogs of ET-18-OMe (1-O-octadecyl-2-O-methyl-rac-glycero-3-phosphocholine). Structural modification of 1-(alkylamido)-, -(alkylthio)-, and -(alkyloxy)propyl backbones has provided further insight into the structure-activity relationships of these lipids. In this study, a long saturated C-1 chain and a three-carbon backbone with a single short C-2 substituent were preferred. At the pos. charged nitrogen of phosphocholines, fewer than three substituents caused a significant loss of activity, and substituents larger than Me decreased activity slightly. In the nonphosphorus compds., many nitrogen heterocycles and also a sulfonium moiety were incorporated without changing the degree of activity; however, a thiazolium group decreased activity. II was approx. twice as active as the reference standard, ET-18-OMe, in a trypan blue dye exclusion assay.

IT 149576-17-0P 149576-20-5P  
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
 (preparation and antitumor activity of)  
 RN 149576-17-0 CAPLUS  
 CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium,  
 4-hydroxy-N,N,N-trimethyl-10-oxo-7-(tetradecyloxy)-, inner salt, 4-oxide  
 (9CI) (CA INDEX NAME)

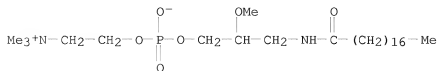


RN 149576-20-5 CAPLUS  
 CN 3,5-Dioxa-9-aza-4-phosphanonacosan-1-aminium,  
 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



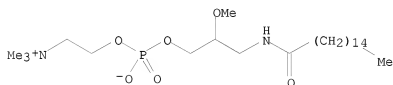
L3 ANSWER 17 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 1993:256943 CAPLUS  
 DOCUMENT NUMBER: 118:256943  
 ORIGINAL REFERENCE NO.: 118:44629a,44632a  
 TITLE: Multigram synthesis of 1-alkylamido phospholipids  
 AUTHOR(S): Surles, Jefferson R.; Morris-Natschke, Susan; Marx, Michael H.; Piantadosi, Claude  
 CORPORATE SOURCE: Sch. Pharm., Univ. North Carolina, Chapel Hill, NC, 27599-7360, USA  
 SOURCE: Lipids (1993), 28(1), 55-7  
 CODEN: LPDSAP; ISSN: 0024-4201  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 AB The multigram synthesis of 1-alkylamido ether phospholipids was accomplished by modifying reaction conditions in the amidation step and changing reagents and solvent systems in both the detritylation and phosphorylation steps. This was most crucial in the phosphorylation step, where in the multigram synthesis 2-bromoethyl dichlorophosphate in 7:3 volume ratio Et2O-THF gave much improved yields compared to the 2-chloro-2-oxo-1,3,2-dioxaphospholane reagent. The modifications also resulted in a product that could be more easily purified in sufficient quantities for use in in vivo inhibition studies.  
 IT 88876-07-7P 112989-00-1P 112989-01-2P  
 112989-02-3P  
 RL: PREP (Preparation)  
 (production of, in gram quantities)  
 RN 88876-07-7 CAPLUS  
 CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium,

4-hydroxy-7-methoxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



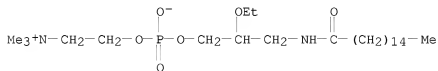
RN 112989-00-1 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,  
4-hydroxy-7-methoxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)  
(CA INDEX NAME)



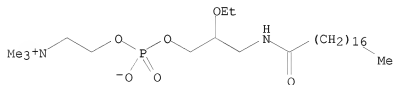
RN 112989-01-2 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,  
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



RN 112989-02-3 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaseptacosan-1-aminium,  
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



L3 ANSWER 18 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1991:185901 CAPLUS

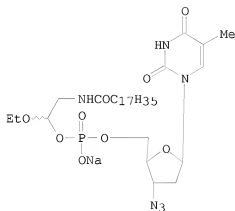
DOCUMENT NUMBER: 114:185901

ORIGINAL REFERENCE NO.: 114:31415a,31418a

TITLE: Synthesis and evaluation of novel ether lipid  
nucleoside conjugates for anti-HIV-1 activity

AUTHOR(S): Piantadosi, Claude; Marasco, Canio J., Jr.;  
Morris-Natschke, Susan L.; Meyer, Karen L.; Gumus,  
Fatma; Surles, Jefferson R.; Ishaq, Khalid S.; Kucera,

Louis S.; Iyer, Nathan; et al.  
 CORPORATE SOURCE: Sch. Pharm., Univ. North Carolina, Chapel Hill, NC,  
 27599, USA  
 SOURCE: Journal of Medicinal Chemistry (1991), 34(4), 1408-14  
 CODEN: JMCMAR; ISSN: 0022-2623  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 114:185901  
 GI



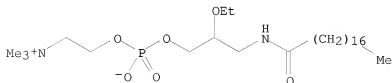
I

AB Combinations of an amidoalkylphosphocholine,  
 C17H35CONHCH2CH(OEt)CH2OP(O)(O-)(O-)(O-)CH2CH2N+Me3, and AZT were found to cause  
 an apparent synergistic action in suppressing infectious HIV-1  
 replication. In addition, alkylamido, alkyloxy, and alkylthio ether lipids  
 were chemical linked to anti-HIV-1 nucleosides (AZT and DDI) through  
 phosphate and phosphonate linkages. These conjugates show promising in  
 vitro anti-HIV-1 activity. Also, the conjugates have a 5-10-fold reduction in  
 cell cytotoxicity compared to AZT alone. The most active compound, an  
 alkylamido ether lipid-AZT conjugate, I was found to have a differential  
 selectivity of 1793 in a syncytial plaque assay. In comparison, AZT alone  
 has a value of 1281.

IT 112989-02-3  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (anti-HIV-1 activity of)

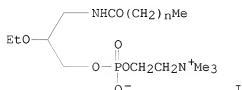
RN 112989-02-3 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium,  
 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX  
 NAME)



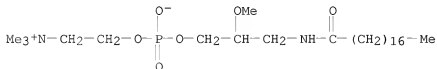
L3 ANSWER 19 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 1991:185881 CAPLUS  
 DOCUMENT NUMBER: 114:185881  
 ORIGINAL REFERENCE NO.: 114:31411a,31414a

TITLE: In vitro evaluation of phosphocholine and quaternary ammonium containing lipids as novel anti-HIV agents  
 AUTHOR(S): Meyer, Karen L.; Marasco, Canino J., Jr.; Morris-Natschke, Susan L.; Ishaq, Khalid S.; Piantadosi, Claude; Kucera, Louis S.  
 CORPORATE SOURCE: Sch. Pharm., Univ. North Carolina, Chapel Hill, NC, 27599, USA  
 SOURCE: Journal of Medicinal Chemistry (1991), 34(4), 1377-83  
 CODEN: JMCMAR; ISSN: 0022-2623  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 114:185881  
 GI

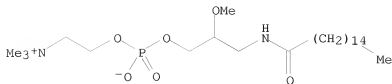


AB A series of synthetic lipids containing a two- or three-carbon backbone substituted with a thio, oxy, or amidoalkyl functionality and either a phosphocholine or quaternary ammonium moiety were evaluated as potential anti-HIV-1 agents. Several analogs were identified as possessing activity with the most promising compound being rac-3-octadecanamido-2-ethoxypropylphosphocholine (I). I exhibited an IC50 for the inhibition of plaque formation of 0.16  $\mu\text{M}$  which was 84-fold lower than the IC50 value determined for CEM-SS cell growth inhibition. Initial mechanistic studies have indicated that these compds., unlike AZT, are not reverse transcriptase (RT) inhibitors, but instead appear to inhibit a late step in HIV replication involving virus assembly and infectious virus production. Since these lipids are acting via a different, mechanism they represent an alternative approach to the chemotherapeutic treatment of AIDS as well as candidates for combination therapy with AZT.

IT 88876-07-7 112989-00-1 112989-01-2  
 112989-02-3  
 RL: RCT (Reactant); RACT (Reactant or reagent)  
 (anti-HIV-1 activity of)  
 RN 88876-07-7 CAPLUS  
 CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium,  
 4-hydroxy-7-methoxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA  
 INDEX NAME)

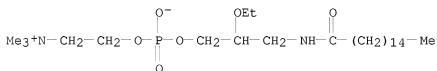


RN 112989-00-1 CAPLUS  
 CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,  
 4-hydroxy-7-methoxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)  
 (CA INDEX NAME)



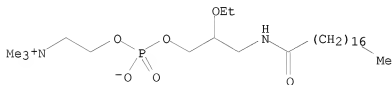
RN 112989-01-2 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,  
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



RN 112989-02-3 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium,  
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)

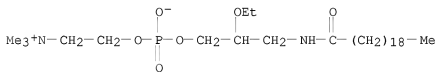


IT 149576-20-5P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation and anti-HIV-1 activity of)

RN 149576-20-5 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphanonacosan-1-aminium,  
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



L3 ANSWER 20 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1990:544660 CAPLUS

DOCUMENT NUMBER: 113:144660

ORIGINAL REFERENCE NO.: 113:24355a, 24356a

TITLE: Pharmacological effects and anticancer activity of new  
ether phospholipid analogs

AUTHOR(S): Modest, E. J.; Berens, M. E.; Piantadosi, C.; Nosedá,  
A.

CORPORATE SOURCE: Bowman Gray Sch. Med., Wake Forest Univ.,

SOURCE: Winston-Salem, NC, 27103, USA  
Pharmacol. Eff. Lipids 3 (1989), 330-7. Editor(s):  
Kabara, Jon J. AOCS: Champaign, Ill.

CODEN: 56UEAF

DOCUMENT TYPE: Conference; General Review

LANGUAGE: English

AB A review with 27 refs. Bioactive phospholipid analogs (ether lipids, EL) of platelet activating factor (1-alkyl-2-acetyl-sn-glycero-3-phosphocholine) inhibit neoplastic cell growth in vitro and in vivo. The efforts were aimed at the synthesis and pharmacol. evaluation of ether lipid analogs designed to be active against exptl. tumors in vitro and in vivo. The in vitro activity of new thio and amido analogs is currently under investigation. The influence of EL on the morphol. and phys. properties of membranes is examined. The possibility of use of membrane-interactive EL in combination with classic antineoplastic DNA-interactive agents is being explored.

IT 88876-07-7 112989-00-1 112989-01-2

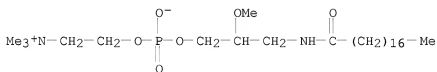
112989-02-3

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(neoplasm-inhibiting activity of, against human and laboratory animal cells, structure in relation to)

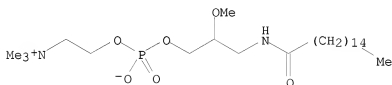
RN 88876-07-7 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium,  
4-hydroxy-7-methoxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



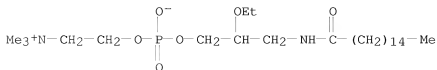
RN 112989-00-1 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,  
4-hydroxy-7-methoxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)  
(CA INDEX NAME)



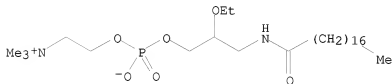
RN 112989-01-2 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,  
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)





RN 112989-02-3 CAPLUS  
 CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium,  
 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX  
 NAME)



L3 ANSWER 21 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1990:470710 CAPLUS

DOCUMENT NUMBER: 113:70710

ORIGINAL REFERENCE NO.: 113:11741a,11744a

TITLE: Novel membrane-interactive ether lipid analogs that inhibit infectious HIV-1 production and induce defective virus formation

AUTHOR(S): Kucera, Louis S.; Iyer, Nathan; Leake, Eva; Raben, Adam; Modest, Edward J.; Daniel, Larry W.; Piantadosi, Claude

CORPORATE SOURCE: Bowman Gray Sch. Med., Wake Forest Univ., Winston-Salem, NC, 27103, USA

SOURCE: AIDS Research and Human Retroviruses (1990), 6(4), 491-501

CODEN: ARHRE7; ISSN: 0889-2229

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A new class of membrane-active ether lipid (EL) analogs of platelet-activating factor were studied for in vitro anti-HIV-1 activity. Human T-cell (CEM-ss) monolayers or suspension cultures were used to determine effects of structural modifications of Type A phosphorus-containing and Type B nonphosphorus EL analogs on (a) the inhibitory concn.50 (IC50) for HIV-1 syncytial plaque formation and cell growth, and, (b) virus budding at the cell plasma membrane. Results indicate that representative Type A and Type B EL inhibit HIV-1 but not herpes simplex virus type 2 plaque formation when added before or up to 2 days after viral infection. Anti-HIV-1 activity does not involve direct inactivation of virus infectivity. Type A EL (IC50 range = 0.2-1.4  $\mu$ M) with alkoxy, alkylthio, or alkylamido substitution at glycerol position 1 and ethoxy or methoxy substitution at position 2, and Type B compds. (IC50 range = 0.33-0.63  $\mu$ M) with an inverse choline or nitrogen heterocyclic substitution at position 3 have selective activity against HIV-1-infected T-cells. EL treatment of HIV-1-infected cells is associated with subsequent release of reverse transcriptase activity, but infectious virus production is inhibited with time after infection. Electron microscopic examination of HIV-1-infected and EL-treated cells revealed absence of detectable budding virus at the plasma membrane but presence of intracytoplasmic vacuolar virus particles. EL analogs are a novel class of agents that induce defective intracytoplasmic vacuolar HIV-1 formation in T-cells. Being membrane interactive, EL are ideally suited for combination chemotherapy with DNA-interactive anti-HIV nucleoside analogs.

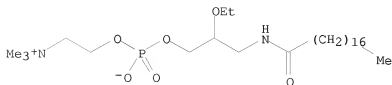
IT 112989-02-3

RL: BIOL (Biological study)  
 (human immunodeficiency virus infection response to)

RN 112989-02-3 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium,

7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



L3 ANSWER 22 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1990:459739 CAPLUS

DOCUMENT NUMBER: 113:59739

ORIGINAL REFERENCE NO.: 113:10127a,10130a

TITLE: Competitive inhibition of lipolytic enzymes. II.

Preparation of 'monoacylamino' phospholipids

Author(s): Dijkman, Ruud; Dekker, Niek; De Haas, Gerard H.

CORPORATE SOURCE: Dep. Biochem., State Univ. Utrecht, Utrecht, Neth.

SOURCE: Biochimica et Biophysica Acta, Lipids and Lipid

Metabolism (1990), 1043(1), 67-74

CODEN: BBLA6; ISSN: 0005-2760

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The synthesis of a number of phosphatidylcholines and phosphatidylglycols, in which one fatty acyl ester group is replaced by an acylamino function was described. The phospholipids, both of the  $\alpha$ - and  $\beta$ -type, are prepared in racemic and enantiomeric pure forms.

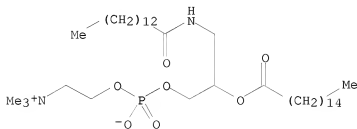
IT 127641-85-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and hydrolysis of)

RN 127641-85-4 CAPLUS

CN 3,5,8-Trioxa-4-phosphatetracosan-1-aminium, 4-hydroxy-N,N,N-trimethyl-9-oxo-7-[[1(1-oxotetradecyl)amino]methyl]-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



L3 ANSWER 23 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1990:419948 CAPLUS

DOCUMENT NUMBER: 113:19948

ORIGINAL REFERENCE NO.: 113:3373a,3376a

TITLE: Competitive inhibition of lipolytic enzymes. III. Some acylamino analogs of phospholipids are potent competitive inhibitors of porcine pancreatic phospholipase A2

AUTHOR(S): De Haas, G. H.; Dijkman, R.; Van Oort, M. G.; Verger, R.

CORPORATE SOURCE: Lab. Biochem., C.B.L.E., Utrecht, Neth.  
SOURCE: Biochimica et Biophysica Acta, Lipids and Lipid Metabolism (1990), 1043(1), 75-82  
CODEN: BBLA6; ISSN: 0005-2760

DOCUMENT TYPE: Journal  
LANGUAGE: English

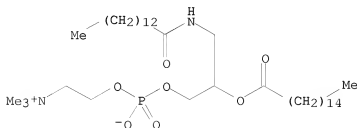
AB Competitive inhibition of porcine pancreatic phospholipase A2 was studied in mixed-micellar systems composed of long- and medium-chain substrates, potential inhibitors, and detergents. A number of positional and stereoisomeric monoacylamino, acyloxyglycerophospholipids were investigated for their inhibitory properties, using as substrates the corresponding diacyl-sn-glycero-3-phospholipids possessing the same polar headgroup and identical acyl chain lengths. Based on a kinetic model applicable to water-insol. inhibitors, which allows a quant. comparison of the inhibitory power (Z) of the various phospholipid analogs, the following results were obtained: substitution of a single acylester bond in a diacylglycerophospholipid by an acylamino group can transform the substrate mol. into a potent competitive inhibitor. This property is acquired only when this substitution occurs on the phospholipid-susceptible ester bond of the substrate. If the acylamino group replaces an ester bond which cannot be attacked by the highly positional and stereospecific phospholipase, the resulting mol. binds with similar affinity to the active site of the enzyme as the parent substrate mol. Because of its positional and stereospecificity, this so-called inhibitory amide effect suggests that these inhibitors behave as substrate-derived analogs. The inhibitory amide effect observed with several medium- and long-chain monoacyloxy-, monoacylamino-deoxyglycerophosphatides is completely lost upon specific alkaline hydrolysis of the single acylester bond. Reesterification of the free glycerol OH group in these lysoacylamino-phosphoglycerides, even with an acetyl residues, restores the inhibitory properties. These observations indicate that specific binding of phospholipids to the active site of pancreatic phospholipase A2, requires the presence of 2 chains in substrate or inhibitor structure and suggest that those results obtained with lysophospholipids and single-chain analogs may be questionable.

IT 127641-85-4

RL: BIOL (Biological study)  
(phospholipase A2 of pancreas inhibition by, kinetics of, structure in relation to)

RN 127641-85-4 CAPLUS

CN 3,5,8-Trioxa-4-phosphatetacosan-1-aminium,  
4-hydroxy-N,N,N-trimethyl-9-oxo-7-[(1-oxotetradecyl)amino]methyl-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



L3 ANSWER 24 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1989:627660 CAPLUS

DOCUMENT NUMBER: 111:227660

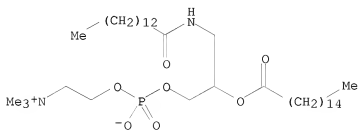
ORIGINAL REFERENCE NO.: 111:37717a,37720a

TITLE: Purification and substrate specificity of

Staphylococcus hyicus lipase  
 AUTHOR(S): Van Oort, Maarten G.; Devere, Annemiek M. T. J.;  
 Dijkman, Ruud; Tjeenk, Marijke Leuveling; Verheij,  
 Hubertus M.; De Haas, Gerardus H.; Wenzig, Edda;  
 Goetz, Fritz  
 CORPORATE SOURCE: Dep. Biochem., State Univ. Utrecht, Utrecht, 3584 CH,  
 Neth.  
 SOURCE: Biochemistry (1989), 28(24), 9278-85  
 CODEN: BICHAW; ISSN: 0006-2960  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB The *S. hyicus* lipase gene has been cloned and expressed in *Staphylococcus carnosus*. From the latter organism the enzyme was secreted into the medium as a protein with an apparent mol. weight of 86 kDa. This protein was purified, and the N-terminal sequence showed that the primary gene product was indeed cleaved at the proposal signal peptide cleavage site. The protein was purified from large-scale preps. after tryptic digestion. This limited proteolysis reduced the mol. weight to 46 kDa and increased the specific activity .apprx.3-fold. Although the enzyme had a low specific activity in the absence of divalent cations, the activity increased .apprx.40-fold in the presence of  $Sr^{2+}$  or  $Ca^{2+}$ . The purified lipase has a broad substrate specificity. The acyl chains were removed from the primary and secondary positions of natural neutral glycerides and from a variety of synthetic glyceride analogs. Thus, triglycerides were fully hydrolyzed to free fatty acid and glycerol. The enzyme hydrolyzed naturally occurring phosphatidylcholines, their synthetic short-chain analogs, and lysophospholipids to free fatty acids and water-soluble products. The enzyme had a 2-fold higher activity on micelles of short-chain D-lecithins than on micelles composed of the L-isomers. Thus, the enzyme from *S. hyicus* has lipase activity and also high phospholipase A and lysophospholipase activity.

IT 127641-85-4  
 RL: BIOL (Biological study)  
 (lipase of *Staphylococcus hyicus* specificity for)  
 RN 127641-85-4 CAPLUS  
 CN 3,5,8-Trioxa-4-phosphatetracosan-1-aminium,  
 4-hydroxy-N,N,N-trimethyl-9-oxo-7-[(1-oxotetradecyl)amino]methyl]-, inner  
 salt, 4-oxide (9CI) (CA INDEX NAME)



L3 ANSWER 25 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 1989:435594 CAPLUS  
 DOCUMENT NUMBER: 111:35594  
 ORIGINAL REFERENCE NO.: 111:6025a,6028a  
 TITLE: Phospholipase A2 inhibitors: monoacyl,  
 monoacylamino-glycero-phosphocholines  
 AUTHOR(S): De Haas, Gerard H.; Van Oort, Maarten G.; Dijkman,  
 Ruud; Verger, Robert  
 CORPORATE SOURCE: Cent. Uithof, State Univ. Utrecht, Utrecht, NL-3584  
 CH, Neth.

SOURCE: Biochemical Society Transactions (1989), 17(2), 274-6  
 CODEN: BCSTB5; ISSN: 0300-5127  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

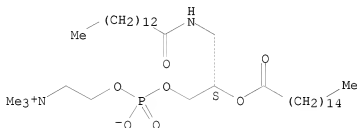
AB The relative affinities of natural lecithins and slightly modified lecithin analogs to the active site of porcine pancreatic phospholipase A2 were determined. Replacement of the phospholipase-fissile fatty acid ester bond in lecithins by an acylamino function forms potent competitive inhibitors. Substitution of the nonphospholipase-susceptible ester bond by the acylamino linkage does not increase affinity of the lecithin analog to the enzyme. Most probably the former lecithin analogs partially mimic the structure of the transition state and bind more tightly to the enzyme than the equivalent substrate mol.

IT 121382-69-2  
 RL: BIOL (Biological study)  
 (phospholipase A2 inhibition by, kinetics of)

RN 121382-69-2 CAPLUS

CN 3,5,8-Trioxa-4-phosphatetracosan-1-aminium,  
 4-hydroxy-N,N,N-trimethyl-9-oxo-7-[[[(1-oxotetradecyl)amino]methyl]-, inner salt, 4-oxide, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L3 ANSWER 26 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1989:50719 CAPLUS

DOCUMENT NUMBER: 110:50719

ORIGINAL REFERENCE NO.: 110:8197a,8200a

TITLE: Effects of antineoplastic ether lipids on model and biological membranes

AUTHOR(S): Nosedá, Alessandro; Godwin, Patrick L.; Modest, Edward J.

CORPORATE SOURCE: Bowman Gray Sch. Med., Wake For. Univ., Winston-Salem, NC, USA

SOURCE: Biochimica et Biophysica Acta, Biomembranes (1988), 945(1), 92-100  
 CODEN: BBBMBS; ISSN: 0005-2736

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Differential scanning calorimetry and ESR were utilized to measure the effects of di-ether glycerophospholipid analogs (EL) on the phys. properties of model membranes and on the membrane fluidity of HL60 leukemic cells. 1-Octadecyl-2-methyl-rac-glycero-3-phosphocholine (ET-18-OMe) and 1-thiohexadecyl-2-ethyl-rac-glycero-3-phosphocholine (ET-16S-OEt) lowered the transition temperature of dimyristoylphosphatidylcholine vesicles at 0.5-15 mol %. Studies conducted on the interaction of EL with a wide spectrum of different phospholipids, namely dipalmitoylphosphatidylcholine, 1-hexadecyl-2-palmitoylphosphatidylcholine, dipalmitoylphosphatidylethanolamine, and dielaidoylphosphatidylethanolamine confirmed the ability of EL to effect

the phys. properties of model membranes. Changes in calorimetric enthalpy were observed only with phosphatidylethanolamine-containing phospholipids. ET-18-OMe and ET-16S-OEt increased the membrane fluidity of HL60 leukemic cells labeled with the fatty acid spin label probe 5-nitroxystearate. Thus, EL are able to partition into phospholipidic domains and to change their phys. properties. Furthermore, they affect the membrane fluidity of whole cells. These effects indicate an interaction between EL and the plasma membrane which may be of importance in determining the cytotoxic activity

against tumor cells exerted by EL.

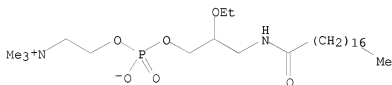
IT 112989-02-3

RL: PRP (Properties)

(membrane interaction of, neoplasm inhibition in relation to)

RN 112989-02-3 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium,  
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



L3 ANSWER 27 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1988:150866 CAPLUS

DOCUMENT NUMBER: 108:150866

ORIGINAL REFERENCE NO.: 108:24789a,24792a

TITLE: Synthesis and evaluation of neoplastic cell growth inhibition of 1-N-alkylamide analogs of glycerol-3-phosphocholine

AUTHOR(S): Marx, Michael H.; Piantadosi, Claude; Noseda, Alessandro; Daniel, Larry W.; Modest, Edward J.

CORPORATE SOURCE: Sch. Pharm., Univ. North Carolina, Chapel Hill, NC, 27514, USA

SOURCE: Journal of Medicinal Chemistry (1988), 31(4), 858-63  
CODEN: JMCMAR; ISSN: 0022-2623

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 108:150866

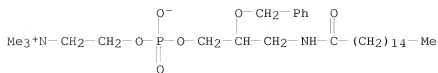
AB Previously unreported analogs of the synthetic antitumor phospholipid ET-18-OMe (1-octadecyl-2-methoxy-rac-glycerol-3-phosphocholine), in which the 1-ether oxygen has been replaced by an amido group, were prepared and evaluated for in vitro cytotoxic effects and for inhibition of protein kinase C. The title compds. RCONHCH2CH(OR1)CH2OP(O)(O-)(O)(CH2)2N+Me3 [R = Me(CH2)14, R1 = Me, Et, H; R = Me(CH2)16, R1 = Me, Et] were prepared from (±)-3-amino-1,2-propanediol in several steps. They showed cytotoxic effects against several tumor cell lines and were approx. equipotent to ET-18-OMe. The compds. also inhibited protein kinase C in an in vitro assay.

IT 112989-03-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and debenzoylation of)

RN 112989-03-4 CAPLUS

CN Ethanaminium, 2-[[hydroxy[3-[(1-oxohexadecyl)amino]-2-(phenylmethoxy)propoxy]phosphinyl]oxy]-N,N,N-trimethyl-, inner salt (CA INDEX NAME)

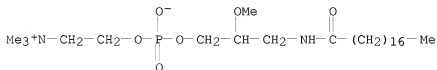


IT 88876-07-7P 112989-00-1P 112989-01-2P  
112989-02-3P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
(preparation and neoplasm inhibiting activity of)

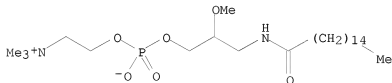
RN 88876-07-7 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium,  
4-hydroxy-7-methoxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA  
INDEX NAME)



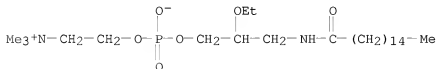
RN 112989-00-1 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,  
4-hydroxy-7-methoxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)  
(CA INDEX NAME)



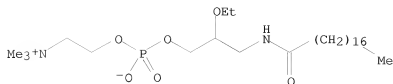
RN 112989-01-2 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,  
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX  
NAME)



RN 112989-02-3 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium,  
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX  
NAME)



L3 ANSWER 28 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1988:87587 CAPLUS

DOCUMENT NUMBER: 108:87587

ORIGINAL REFERENCE NO.: 108:14267a,14270a

TITLE: Neoplastic cell inhibition with new ether lipid analogs

AUTHOR(S): Nosedà, Alessandro; Berens, Michael E.; Piantadosi, Claude; Modest, Edward J.

CORPORATE SOURCE: Bowman Gray Sch. Med., Wake Forest Univ., Winston-Salem, NC, 27103, USA

SOURCE: Lipids (1987), 22(11), 878-83  
CODEN: LPDSAP; ISSN: 0024-4201

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Bioactive phospholipid analogs of platelet-activating factor (PAF) represent a new approach to cancer chemotherapy. Various modifications of the basic structure of PAF lead to different ether lipid (EL) analogs. Data from the evaluation of thioalkyl and amidoalkyl glycerophosphocholine and of glycerophosphoinositol EL analogs against different exptl. tumors in vitro (HL60 and K562 human leukemia cells, BGI and BG3 ovarian adenocarcinomas) are presented. Exclusion of trypan blue after short exposure to the drugs determined cytotoxicity, and a soft agarose clonogenic assay measured the ability of the analogs to inhibit tumor cell proliferation. The thioalkyl EL are very active against the cell lines using both end points, and the amidoalkyl EL showed efficacy against the leukemic cell lines, whereas the phosphoinositol EL are active only at high concns. Combined use of EL analogs, which are membrane-interactive, with classical DNA-interactive chemotherapeutic drugs revealed that the combinations have additive antiproliferative effects. These results are promising leads in the development of the anticancer potential of ether lipid analogs. Structure activity relationship is discussed.

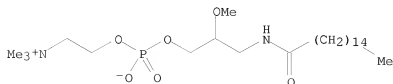
IT 112989-00-1

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(neoplasm inhibition by)

RN 112989-00-1 CAPLUS

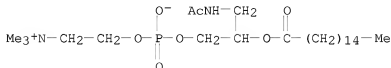
CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium, 4-hydroxy-7-methoxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



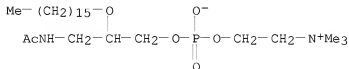
L3 ANSWER 29 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN



ACCESSION NUMBER: 1987:422952 CAPLUS  
 DOCUMENT NUMBER: 107:22952  
 ORIGINAL REFERENCE NO.: 107:3871a,3874a  
 TITLE: New potential immunoenhancing compounds. I. Syntheses of 1-amino-1-deoxyphosphatidylcholine derivatives  
 AUTHOR(S): Canonica, Luigi; Nali, Micaela; Rindone, Bruno; Bosone, Enrico; Guazzi, Giuseppe; Innocenti, Sergio; Valcavi, Umberto  
 CORPORATE SOURCE: Dip. Chim. Org. Ind., Univ. Milano, Milan, I-20133, Italy  
 SOURCE: Gazzetta Chimica Italiana (1986), 116(1), 19-23  
 CODEN: GCITA9; ISSN: 0016-5603  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 107:22952  
 AB Five RNHCH2CH(OR1)CH2OP(O)(O-)OCH2CH2N+Me3 [I; R = H, Ac; R1 = H, Me(CH2)14CO, Me(CH2)15] were prepared and tested as immune adjuvants. Thus, glycidol was treated with (PhCH2)2NH, and then Ph3CCl in pyridine to give (PhCH2)2NCH2CH(OH)CH2OCPh3, which was treated with NaH and PhCH2Br in THF, followed by detritylation with HCl to give (PhCH2)2NCH2CH(OCH2Ph)CH2OH. Treating the latter compound with POCl3 and Et3N in CHCl3, followed by HOCH2CH2N+Me3-O3SC6H4Me-4 in pyridine, and then hydrogenolysis over Pd/C gave I (R = R1 = H). No significant immune enhancing activity was shown by any of the I.  
 IT 108587-37-7P 108910-26-5P  
 RL: SPN (Synthetic preparation); PREP (Preparation) (preparation and immune stimulant activity of)  
 RN 108587-37-7 CAPLUS  
 CN Ethanaminium, 2-[[[3-(acetylamino)-2-[(1-oxohexadecyl)oxy]propoxy]hydroxyphosphinyl]oxy]-N,N,N-trimethyl-, inner salt (CA INDEX NAME)



RN 108910-26-5 CAPLUS  
 CN Ethanaminium, 2-[[[3-(acetylamino)-2-(hexadecyloxy)propoxy]hydroxyphosphinyl]oxy]-N,N,N-trimethyl-, inner salt (CA INDEX NAME)



L3 ANSWER 30 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 1984:138865 CAPLUS  
 DOCUMENT NUMBER: 100:138865  
 ORIGINAL REFERENCE NO.: 100:21183a,21186a  
 TITLE: Phospholipid derivatives, and pharmaceutical composition containing them  
 INVENTOR(S): Teraji, Tsutomu; Todo, Eishiro; Shimazaki, Norihiko;

Oku, Teruo; Namiki, Takayuki  
 PATENT ASSIGNEE(S): Fujisawa Pharmaceutical Co., Ltd. , Japan  
 SOURCE: Eur. Pat. Appl., 33 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 92190	A2	19831026	EP 1983-103644	19830415
EP 92190	A3	19840201		
EP 92190	B1	19860924		
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
US 4562179	A	19851231	US 1983-482447	19830406
DK 8301643	A	19831020	DK 1983-1643	19830414
JP 58189191	A	19831104	JP 1983-67618	19830415
PRIORITY APPLN. INFO.:			GB 1982-11284	A 19820419

OTHER SOURCE(S): MARPAT 100:138865

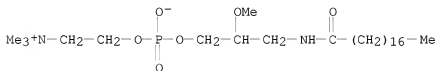
AB RCH2CH(OR1)CH2OP(O)(R2)OnXR3 [R = alkyl, alkoxy, alkanoylamino; R1 = alkyl, alkanesulfonyl, arenesulfonyl; R2 = O-, alkoxy; R3 = quaternary ammonium; X = (un)substituted alkylene; n = 0,1] were prepared. Thus Me(CH2)15CH(OH)CH2OCPH3 was methylated and detritylated to give Me(CH2)15CH(OMe)CH2OH which was treated with BrCH2CH2OP(O)Cl2 and hydrolyzed to give Me(CH2)10CH(OMe)CH2OP(O)(OH)CH2CH2Br(I). Treatment of I with Me3N gave Me(CH2)15CH(OMe)CH2OP(O)(O-)CH2CH2N+Me3 which had an antitumor activity of 45% against fibrosarcoma Meth A in mice at 3 + 100 mg/mouse i.p.

IT 88876-07-7P

RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)

RN 88876-07-7 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-ammonium,  
 4-hydroxy-7-methoxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA  
 INDEX NAME)



L3 ANSWER 31 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1983:453484 CAPLUS

DOCUMENT NUMBER: 99:53484

ORIGINAL REFERENCE NO.: 99:8345a,8348a

TITLE: Phospholipid derivatives and their pharmaceutical composition

INVENTOR(S): Teraji, Tsutomu; Todo, Eishiro; Shimazaki, Norihiko;  
 Oku, Teruo; Namiki, Takayuki

PATENT ASSIGNEE(S): Fujisawa Pharmaceutical Co., Ltd. , Japan

SOURCE: Eur. Pat. Appl., 59 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 70433	A1	19830126	EP 1982-105875	19820701
EP 70433	B1	19851127		
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
US 4493832	A	19850115	US 1982-391918	19820624
JP 58013592	A	19830126	JP 1982-113353	19820630
JP 02059833	B	19901213		

PRIORITY APPLN. INFO.: GB 1981-20612 A 19810703

OTHER SOURCE(S):

MARPAT 99:53484

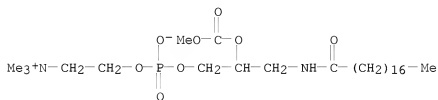
AB Antihypertensive (no data) RCH2CH(OCO2R1)CH2OP(O)(OR2)OnXR3 (R = alkyl, alkoxy, alkylthio, aralkoxy, acylamino; R1 = alkyl, aralkyl; R2 = H, alkyl; R3 = alkylammonium, pyridinium; X = alkylene; n = 0, 1) were prepared Thus, Me(CH2)11OCH2CH(OH)CH2OCPh3 was treated with ClCO2Me and detritylated to give Me(CH2)11OCH2CH(OCO2Me)CH2OH which was treated with BrCH2CH2P(O)Cl2 to give Me(CH2)11OCH2CH(OCO2Me)CH2OP(O)(R4)OCH2CH2Br (I, R4 = Cl). Hydrolysis of I (R4 = Cl) gave I (R4 = OH) which was treated with Me3N to give Me(CH2)11OCH2CH(OCO2Me)CH2OP(O)(O-)-CH2CH2N+Me3.

IT 86478-39-9P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 86478-39-9 CAPLUS

CN 3,5,8,10-Tetraoxa-4-phosphaundecan-1-aminium,  
4-hydroxy-N,N,N-trimethyl-9-oxo-7-[[[(1-oxooctadecyl)amino]methyl]-, inner  
salt, 4-oxide (CA INDEX NAME)



L3 ANSWER 32 OF 50 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1980:567622 CAPLUS

DOCUMENT NUMBER: 93:167622

ORIGINAL REFERENCE NO.: 93:26683a,26686a

TITLE: Phospholipid analogs and their preparation

INVENTOR(S): Oette, Kurt; Tschung, Tschae Sang

PATENT ASSIGNEE(S): Nattermann, A., und Cie. G.m.b.H., Fed. Rep. Ger.

SOURCE: Brit. UK Pat. Appl., 10 pp.

CODEN: BAXXDU

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 2020663	A	19791121	GB 1979-16400	19790511
GB 2020663	B	19821013		
DE 2820893	A1	19791122	DE 1978-2820893	19780512
DE 2820893	C2	19860220		
FR 2425442	A1	19791207	FR 1979-11872	19790510
FR 2425442	B1	19821015		
CA 1117965	A1	19820209	CA 1979-327377	19790510
JP 54148727	A	19791121	JP 1979-57968	19790511
ZA 7902284	A	19800625	ZA 1979-2284	19790511

US 4221732 A 19800909 US 1979-38354 19790511  
 PRIORITY APPLN. INFO.: DE 1978-2820893 A 19780512  
 OTHER SOURCE(S): MARPAT 93:167622

AB The phospholipid analogs RZCH<sub>2</sub>CH(Z1R1)CH<sub>2</sub>OP(O)(O-)O(CH<sub>2</sub>)<sub>n</sub>R<sub>2</sub> (R, R<sub>1</sub> = H, saturated or unsat. C<sub>2</sub>-24 acyl; R<sub>2</sub> = NH<sub>2</sub>, N+H<sub>3</sub>, N+H<sub>2</sub>Me, N+HMe<sub>2</sub>, N+Me<sub>3</sub>; Z, Z<sub>1</sub> = NH, O; n = 1-3), useful in the preparation of stable liposomes useful as vehicles for pharmaceutical preps., were prepared by known methods. Thus, 1-N-palmityl-2-O-linoly-1-aminopropane-2,3-diol-3-O-phosphorylcholine was prepared (89%) from the corresponding 3-hydroxy compound by sequential treatment with Cl<sub>2</sub>P(O)O(CH<sub>2</sub>)<sub>2</sub>Br (CHCl<sub>3</sub>-pyridine, 1 h, 0°) and Me<sub>3</sub>N (PhMe, 10 h, 60°). I show antilipemic, antiatherosclerotic, and antiprostaglandin activity; they dehydrate tissues or prevent edema formation, inhibit tumor growth, suppress immunity, and retard blood platelet aggregation (no data).

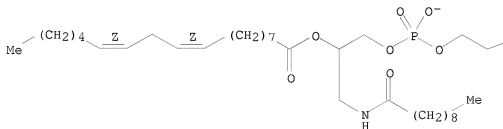
IT 74471-25-3P 74471-27-5P 74471-28-6P  
 74471-29-7P 74471-30-0P 74487-77-7P  
 74487-78-8P 74487-79-9P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of, as liposome)

RN 74471-25-3 CAPLUS

CN 3,5,8-Trioxa-4-phosphahexacos-17,20-dien-1-aminium,  
 4-hydroxy-N,N,N-trimethyl-9-oxo-7-[(1-oxodecyl)amino]methyl]-, inner  
 salt, 4-oxide, (Z,Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A



PAGE 1-B

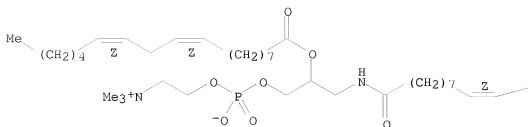
— N<sup>+</sup>Me<sub>3</sub>

RN 74471-27-5 CAPLUS

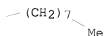
CN 3,5-Dioxa-9-aza-4-phosphahexacos-18-en-1-aminium,  
 4-hydroxy-N,N,N-trimethyl-10-oxo-7-[(1-oxo-9,12-octadecadienyl)oxy]-,  
 inner salt, 4-oxide, (Z,Z,Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A



PAGE 1-B

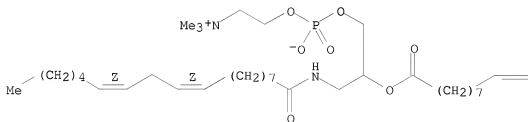


RN 74471-28-6 CAPLUS

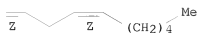
CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-18,21-dien-1-aminium,  
4-hydroxy-N,N,N-trimethyl-10-oxo-7-[(1-oxo-9,12-octadecadienyl)oxy]-,  
inner salt, 4-oxide, (all-Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A

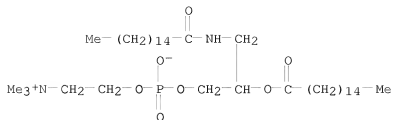


PAGE 1-B



RN 74471-29-7 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,  
4-hydroxy-N,N,N-trimethyl-10-oxo-7-[(1-oxohexadecyl)oxy]-, inner salt,  
4-oxide (CA INDEX NAME)

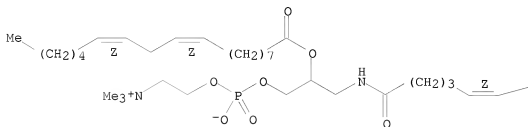


RN 74471-30-0 CAPLUS

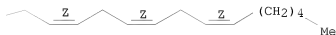
CN 3,5-Dioxa-9-aza-4-phosphanonacosa-14,17,20,23-tetraen-1-aminium,  
4-hydroxy-N,N,N-trimethyl-10-oxo-7-[(1-oxo-9,12-octadecadienyl)oxyl]-,  
inner salt, 4-oxide, (all-Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A



PAGE 1-B

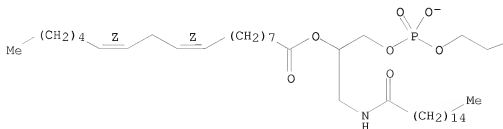


RN 74487-77-7 CAPLUS

CN 3,5,8-Trioxa-4-phosphahexacosa-17,20-dien-1-aminium,  
4-hydroxy-N,N,N-trimethyl-9-oxo-7-[(1-oxohexadecyl)amino]methyl]-, inner  
salt, 4-oxide, (Z,Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

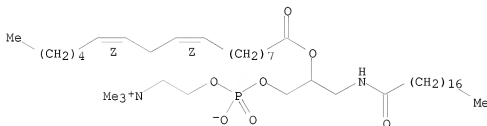
PAGE 1-A



N<sup>+</sup>Me<sub>3</sub>

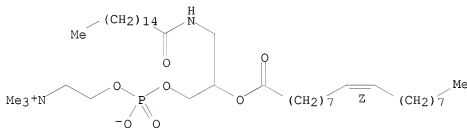
RN 74487-78-8 CAPLUS  
 CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium,  
 4-hydroxy-N,N,N-trimethyl-9-oxo-7-[(1-oxo-9,12-octadecadienyl)oxy]-, inner  
 salt, 4-oxide, (Z,Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 74487-79-9 CAPLUS  
 CN 3,5,8-Trioxa-4-phosphahexacos-17-en-1-aminium,  
 4-hydroxy-N,N,N-trimethyl-9-oxo-7-[(1-oxohexadecyl)amino]methyl]-, inner  
 salt, 4-oxide, (Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



L3 ANSWER 33 OF 50 WPIDS COPYRIGHT 2009 THOMSON REUTERS on STN  
 DATA NOT AVAILABLE FOR THIS ACCESSION NUMBER

L3 ANSWER 34 OF 50 USPATFULL on STN  
 ACCESSION NUMBER: 2008:334491 USPATFULL  
 TITLE: Lipid analogs for combating tumors  
 INVENTOR(S): Kucera, Louis S., Pfafftown, NC, UNITED STATES  
 Morris-Natschke, Susan L., Apex, NC, UNITED STATES  
 Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES  
 PATENT ASSIGNEE(S): Wake Forest University, Winston-Salem, NC, UNITED STATES (U.S. corporation)  
 University of North Carolina, Chapel Hill, NC, UNITED STATES (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 20080293667	A1	20081127

APPLICATION INFO.: US 2007-980819 A1 20071031 (11)  
 RELATED APPLN. INFO.: Division of Ser. No. US 2006-588313, filed on 27 Oct 2006, Pat. No. US 7294621 Division of Ser. No. US 2004-943923, filed on 20 Sep 2004, Pat. No. US 7141557 Continuation of Ser. No. US 1999-412253, filed on 5 Oct 1999, Pat. No. US 6232679 Division of Ser. No. US 1997-793470, filed on 2 May 1997, Pat. No. US 5962437 Continuation of Ser. No. US 1994-314901, filed on 29 Sep 1994, ABANDONED Continuation-in-part of Ser. No. US 1994-297416, filed on 29 Aug 1994, ABANDONED

DOCUMENT TYPE: Utility  
 FILE SEGMENT: APPLICATION  
 LEGAL REPRESENTATIVE: MORGAN LEWIS & BOCKIUS LLP, 1111 PENNSYLVANIA AVENUE NW, WASHINGTON, DC, 20004, US

NUMBER OF CLAIMS: 61  
 EXEMPLARY CLAIM: 1-20  
 LINE COUNT: 1152  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to methods of treating viral infections, and in particular hepatitis B virus. The method comprises administering to a subject in need of such treatment an infection-controlling amount of a phospholipid or phospholipid derivative to inhibit the activity of the viral infection.

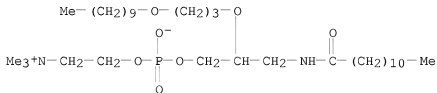
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 178172-98-0 178172-99-1 178173-00-7  
 178173-01-8

(phospholipids for treating viral infections and tumors)

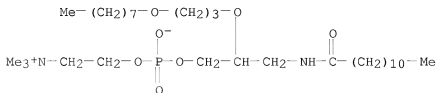
RN 178172-98-0 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
 7-[3-(decyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,  
 4-oxide (9CI) (CA INDEX NAME)



RN 178172-99-1 USPATFULL

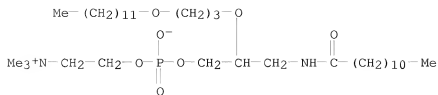
CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
 4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt,  
 4-oxide (9CI) (CA INDEX NAME)



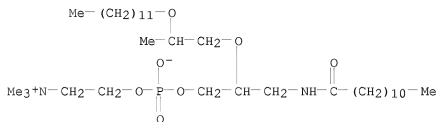
RN 178173-00-7 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
 7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,  
 4-oxide (9CI) (CA INDEX NAME)





RN 178173-01-8 USPATFULL  
 CN Ethanaminium, 2-[[[2-[2-(dodecyloxy)propoxy]-3-[(1-oxododecyl)amino]propoxy]hydroxyphosphinyl]oxy]-N,N,N-trimethyl-, inner salt (CA INDEX NAME)



L3 ANSWER 35 OF 50 USPATFULL on STN  
 ACCESSION NUMBER: 2007:147810 USPATFULL  
 TITLE: Needle-like member, conductive contact, and conductive contact unit  
 INVENTOR(S): Kazama, Toshio, Nagano, JAPAN  
 Hironaka, Kohei, Nagano, JAPAN  
 PATENT ASSIGNEE(S): NHK SPRING CO., LTD., YOKOHAMA-SHI, JAPAN (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 20070128906	A1	20070607
APPLICATION INFO.:	US 2005-588311	A1	20050204 (10)
	WO 2005-JP1712		20050204
			20060803 PCT 371 date

	NUMBER	DATE
PRIORITY INFORMATION:	JP 2004-28106	20040204
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	ARMSTRONG, KRATZ, QUINTOS, HANSON & BROOKS, LLP, 1725 K STREET, NW, SUITE 1000, WASHINGTON, DC, 20006, US	
NUMBER OF CLAIMS:	18	
EXEMPLARY CLAIM:	1-5	
NUMBER OF DRAWINGS:	9 Drawing Page(s)	
LINE COUNT:	1013	
CAS INDEXING IS AVAILABLE FOR THIS PATENT.		

AB A first needle-like member includes a columnar member formed by a conductive material such as a metal material with its up-and-down direction being longitudinal, and a contact member formed on a semiconductor integrated circuit (body to be contacted) side with respect to the columnar member, which are integrally formed. In the columnar member, a through hole is formed in the longitudinal direction

of the first needle-like member. The through hole has opening ends on both sides thereof. Thus, in the process of manufacturing the needle-like member, the contact member is formed on a rod-like body being a raw material from the same direction as a drill insertion direction to form the through hole.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

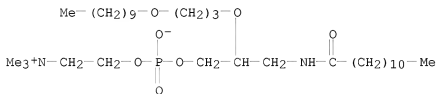
IT 178172-98-0 178172-99-1 178173-00-7

178173-01-8

(phospholipids for treating viral infections and tumors)

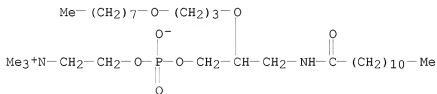
RN 178172-98-0 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-[3-(decyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,  
4-oxide (9CI) (CA INDEX NAME)



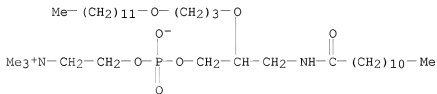
RN 178172-99-1 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt,  
4-oxide (9CI) (CA INDEX NAME)



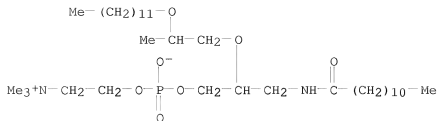
RN 178173-00-7 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,  
4-oxide (9CI) (CA INDEX NAME)



RN 178173-01-8 USPATFULL

CN Ethanaminium, 2-[[[2-[2-(dodecyloxy)propoxy]-3-[(1-oxododecyl)amino]propoxy]hydroxyphosphinyl]oxy]-N,N,N-trimethyl-, inner salt (CA INDEX NAME)



L3 ANSWER 36 OF 50 USPATFULL on STN  
 ACCESSION NUMBER: 2007:147275 USPATFULL  
 TITLE: Coating material, method for manufacturing optical film  
 using the coating material, optical film, polarizing  
 plate and image display apparatus  
 INVENTOR(S): Takada, Katsunori, Osaka, JAPAN  
 Yamaoka, Takashi, Osaka, JAPAN  
 Yamada, Taku, Osaka, JAPAN  
 PATENT ASSIGNEE(S): NITTO DENKO CORPORATION, Ibaraki-shi, JAPAN, 567-8680  
 (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 20070128370	A1	20070607
APPLICATION INFO.:	US 2005-588308	A1	20050202 (10)
	WO 2005-JP1510		20050202
			20060803 PCT 371 date

	NUMBER	DATE
PRIORITY INFORMATION:	JP 2004-30891	20040206
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	APPLICATION	
LEGAL REPRESENTATIVE:	WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP, 1250 CONNECTICUT AVENUE, NW, SUITE 700, WASHINGTON, DC, 20036, US	

NUMBER OF CLAIMS: 24  
 EXEMPLARY CLAIM: 1  
 LINE COUNT: 956

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The present invention provides a coating material for forming a coating layer that can achieve excellent adhesion to a transparent film. The coating material is prepared so that it contains a thermosetting resin, an inorganic filler, and a mixed solvent containing cyclohexanone. The content of the thermosetting resin is in the range from 5 to 20 wt % with respect to the total amount of the thermosetting resin and the inorganic filler, and the content of the cyclohexanone is in the range from 25 to 35 wt % with respect to the entire mixed solvent. By coating a surface of a transparent film with this coating material and then heat-treating the resultant coating, a coating layer with excellent adhesion can be formed on transparent film. The thus-obtained laminate of the transparent film and the coating layer can be used as an antireflection film.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 178172-98-0 178172-99-1 178173-00-7

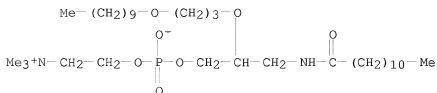
178173-01-8

(phospholipids for treating viral infections and tumors)

RN 178172-98-0 USPATFULL

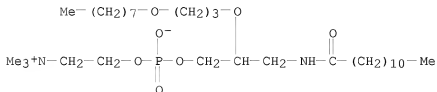
CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-amium,

7-[3-(decyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,  
4-oxide (9CI) (CA INDEX NAME)



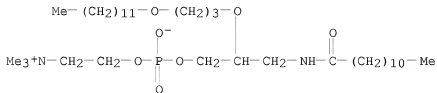
RN 178172-99-1 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt,  
4-oxide (9CI) (CA INDEX NAME)



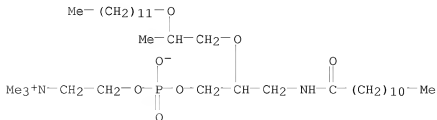
RN 178173-00-7 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,  
4-oxide (9CI) (CA INDEX NAME)



RN 178173-01-8 USPATFULL

CN Ethanaminium, 2-[[[2-[2-(dodecyloxy)propoxy]-3-[(1-oxododecyl)amino]propoxy]hydroxyphosphinyl]oxy]-N,N,N-trimethyl-, inner  
salt (CA INDEX NAME)



L3 ANSWER 37 OF 50 USPATFULL on STN

ACCESSION NUMBER: 2007:121606 USPATFULL

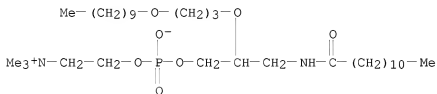
TITLE: Lipid analogs for inhibiting HIV-1 activity  
 INVENTOR(S): Kucera, Louis S., Pfafftown, NC, UNITED STATES  
 Morris-Natschke, Susan L., Apex, NC, UNITED STATES  
 Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES  
 PATENT ASSIGNEE(S): Wake Forest University (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 20070105812	A1	20070510
	US 7294620	B2	20071113
APPLICATION INFO.:	US 2006-588311	A1	20061027 (11)
RELATED APPLN. INFO.:	Division of Ser. No. US 1999-412539, filed on 4 Oct 1999, GRANTED, Pat. No. US 7129227 Division of Ser. No. US 1997-793470, filed on 2 May 1997, GRANTED, Pat. No. US 5962437 Continuation of Ser. No. US 1994-314901, filed on 29 Sep 1994, ABANDONED Continuation-in-part of Ser. No. US 1994-297416, filed on 29 Aug 1994, ABANDONED		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	MORGAN LEWIS & BOCKIUS LLP, 1111 PENNSYLVANIA AVENUE NW, WASHINGTON, DC, 20004, US		
NUMBER OF CLAIMS:	18		
EXEMPLARY CLAIM:	1-106		
LINE COUNT:	898		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

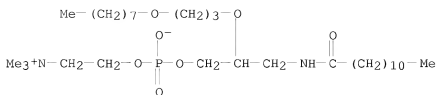
AB The invention relates to methods of treating viral infections, and in particular hepatitis B virus. The method comprises administering to a subject in need of such treatment an infection-controlling amount of a phospholipid or phospholipid derivative to inhibit the activity of the viral infection.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 178172-98-0 178172-99-1 178173-00-7  
 178173-01-8  
 (phospholipids for treating viral infections and tumors)  
 RN 178172-98-0 USPATFULL  
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
 7-[3-(decyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,  
 4-oxide (9CI) (CA INDEX NAME)

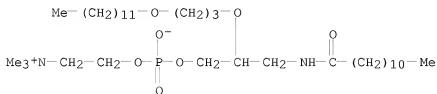


RN 178172-99-1 USPATFULL  
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
 4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt,  
 4-oxide (9CI) (CA INDEX NAME)



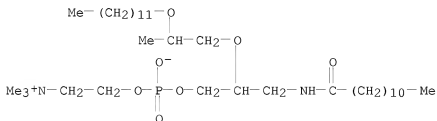
RN 178173-00-7 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,  
4-oxide (9CI) (CA INDEX NAME)



RN 178173-01-8 USPATFULL

CN Ethanaminium, 2-[[[2-(dodecyloxy)propoxy]-3-[(1-oxododecyl)amino]propoxy]hydroxyphosphinyl]oxy]-N,N,N-trimethyl-, inner salt (CA INDEX NAME)



L3 ANSWER 38 OF 50 USPATFULL on STN

ACCESSION NUMBER: 2007:121605 USPATFULL

TITLE: Lipid analogs for inhibiting the activity of hepatitis B antigen

INVENTOR(S): Kucera, Louis S., Pfafftown, NC, UNITED STATES  
Morris-Natschke, Susan L., Apex, NC, UNITED STATES  
Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES

PATENT ASSIGNEE(S): Wake Forest University (U.S. corporation)  
University of North Carolina at Chapel Hill (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 20070105811	A1	20070510
	US 7294619	B2	20071113
APPLICATION INFO.:	US 2006-588308	A1	20061027 (11)
RELATED APPLN. INFO.:	Division of Ser. No. US 2004-889127, filed on 13 Jul 2004, GRANTED, Pat. No. US 7135584		
	Division of Ser. No. US 1999-412539, filed on 4 Oct 1999, GRANTED, Pat. No. US 7129227		
	Division of Ser. No. US 1997-793470, filed		

on 2 May 1997, GRANTED, Pat. No. US 5962437  
Continuation of Ser. No. US 1994-314901, filed on 29  
Sep 1994, ABANDONED Continuation-in-part of Ser. No. US  
1994-297416, filed on 29 Aug 1994, ABANDONED

DOCUMENT TYPE: Utility  
FILE SEGMENT: APPLICATION  
LEGAL REPRESENTATIVE: MORGAN LEWIS & BOCKIUS LLP, 1111 PENNSYLVANIA AVENUE  
NW, WASHINGTON, DC, 20004, US  
NUMBER OF CLAIMS: 20  
EXEMPLARY CLAIM: 1-106  
LINE COUNT: 899

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to methods of treating viral infections, and in particular hepatitis B virus. The method comprises administering to a subject in need of such treatment an infection-controlling amount of a phospholipid or phospholipid derivative to inhibit the activity of the viral infection.

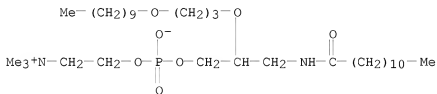
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 178172-98-0 178172-99-1 178173-00-7  
178173-01-8

(phospholipids for treating viral infections and tumors)

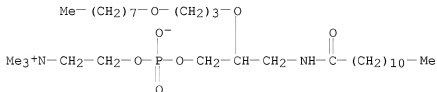
RN 178172-98-0 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-[3-(decyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,  
4-oxide (9CI) (CA INDEX NAME)



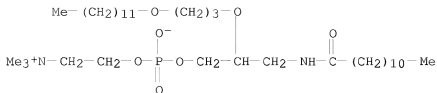
RN 178172-99-1 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt,  
4-oxide (9CI) (CA INDEX NAME)



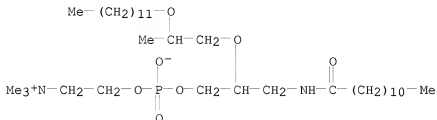
RN 178173-00-7 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,  
4-oxide (9CI) (CA INDEX NAME)



RN 178173-01-8 USPATFULL

CN Ethanaminium, 2-[[[2-(dodecyloxy)propoxy]-3-[(1-oxododecyl)aminol]propoxy]hydroxyphosphinyl]oxy]-N,N,N-trimethyl-, inner salt (CA INDEX NAME)



L3 ANSWER 39 OF 50 USPATFULL on STN

ACCESSION NUMBER: 2007:114796 USPATFULL

TITLE: Lipid analogs for combating tumors

INVENTOR(S): Kucera, Louis S., Pfafftown, NC, UNITED STATES  
Morris-Natschke, Susan L., Apex, NC, UNITED STATES  
Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES

PATENT ASSIGNEE(S): Wake Forest University (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 20070099870	A1	20070503
	US 7294621	B2	20071113
APPLICATION INFO.:	US 2006-588313	A1	20061027 (11)
RELATED APPLN. INFO.:	Division of Ser. No. US 2004-943923, filed on 20 Sep 2004, GRANTED, Pat. No. US 7141557 Continuation of Ser. No. US 1999-412539, filed on 4 Oct 1999, GRANTED, Pat. No. US 7129227 Division of Ser. No. US 1997-793470, filed on 2 May 1997, GRANTED, Pat. No. US 5962437 Continuation of Ser. No. US 1994-314901, filed on 29 Sep 1994, ABANDONED Continuation-in-part of Ser. No. US 1994-297416, filed on 29 Aug 1994, ABANDONED		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	MORGAN LEWIS & BOCKIUS LLP, 1111 PENNSYLVANIA AVENUE NW, WASHINGTON, DC, 20004, US		
NUMBER OF CLAIMS:	19		
EXEMPLARY CLAIM:	1-106		
LINE COUNT:	900		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

AB The invention relates to methods of treating viral infections, and in particular hepatitis B virus. The method comprises administering to a subject in need of such treatment an infection-controlling amount of a phospholipid or phospholipid derivative to inhibit the activity of the viral infection.



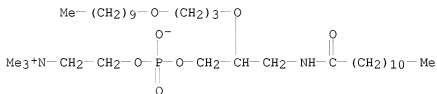
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 178172-98-0 178172-99-1 178173-00-7  
178173-01-8

(phospholipids for treating viral infections and tumors)

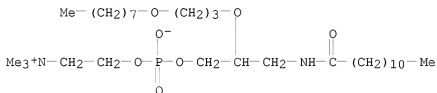
RN 178172-98-0 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-[3-(decyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,  
4-oxide (9CI) (CA INDEX NAME)



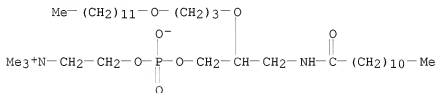
RN 178172-99-1 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt,  
4-oxide (9CI) (CA INDEX NAME)



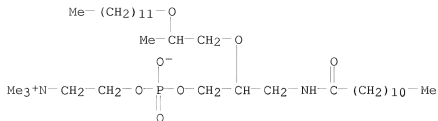
RN 178173-00-7 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,  
4-oxide (9CI) (CA INDEX NAME)



RN 178173-01-8 USPATFULL

CN Ethanaminium, 2-[[[2-[2-(dodecyloxy)propoxy]-3-[(1-oxododecyl)amino]propoxy]hydroxyphosphinyl]oxy]-N,N,N-trimethyl-, inner salt (CA INDEX NAME)



L3 ANSWER 40 OF 50 USPATFULL on STN  
 ACCESSION NUMBER: 2006:284487 USPATFULL  
 TITLE: Lipid analogs for treating viral infections  
 INVENTOR(S): Kucera, Louis S., Pfafftown, NC, UNITED STATES  
 Morris-Natschke, Susan L., Apex, NC, UNITED STATES  
 Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES  
 PATENT ASSIGNEE(S): Wake Forest University, Winston Salem, NC, UNITED STATES (U.S. corporation)  
 University of North Carolina at Chapel Hill, Chapel Hill, NC, UNITED STATES (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 7129227	B1	20061031
APPLICATION INFO.:	US 1999-412539		19991004 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 2003-793470, Pat. No. US 5962437 A 371 of International Ser. No. WO 1995-US10111, filed on 7 Aug 1995 Continuation of Ser. No. US 1994-314901, filed on 29 Sep 1994, ABANDONED Continuation-in-part of Ser. No. US 1994-297416, filed on 29 Aug 1994, ABANDONED		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	GRANTED		
PRIMARY EXAMINER:	Coleman, Brenda		
LEGAL REPRESENTATIVE:	Morgan Lewis & Bockius LLP		
NUMBER OF CLAIMS:	24		
EXEMPLARY CLAIM:	1		
LINE COUNT:	1259		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method of treating viral infections, and in particular HIV-1, hepatitis B virus, and herpesviruses, is disclosed. The method comprises administering to a subject in need of such treatment an infection-combating amount of a phospholipid or phospholipid derivative.

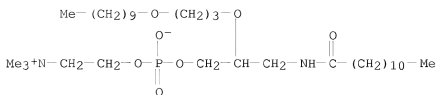
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 178172-98-0 178172-99-1 178173-00-7  
 178173-01-8

(phospholipids for treating viral infections and tumors)

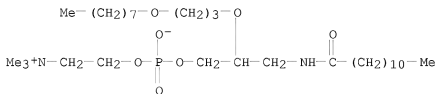
RN 178172-98-0 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
 7-[3-(decyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,  
 4-oxide (9CI) (CA INDEX NAME)



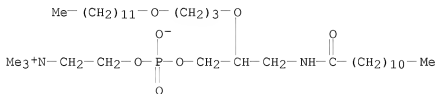
RN 178172-99-1 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt,  
4-oxide (9CI) (CA INDEX NAME)



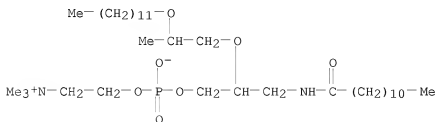
RN 178173-00-7 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,  
4-oxide (9CI) (CA INDEX NAME)



RN 178173-01-8 USPATFULL

CN Ethanaminium, 2-[[[2-[2-(dodecyloxy)propoxy]-3-[(1-oxododecyl)amino]propoxy]hydroxyphosphinyl]oxy]-N,N,N-trimethyl-, inner  
salt (CA INDEX NAME)



L3 ANSWER 41 OF 50 USPATFULL on STN

ACCESSION NUMBER: 2005:215516 USPATFULL

TITLE: Phospholipids for the treatment of infection by  
togaviruses, herpes viruses and coronaviruses

INVENTOR(S): Fleming, Ronald A., Cary, NC, UNITED STATES

Hes, Jan V., Hurdle Mills, NC, UNITED STATES  
Huang, Yunsheng, Apex, NC, UNITED STATES  
Read, Russ H., Rural Hall, NC, UNITED STATES  
Morris-Natschke, Susan L., Apex, NC, UNITED STATES  
Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES  
Kucera, Louis S., Pfaffown, NC, UNITED STATES  
Furman, Phillip A., Durham, NC, UNITED STATES  
PATENT ASSIGNEE(S): Kucera Pharmaceutical Company (U.S. corporation)

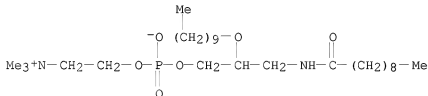
	NUMBER	KIND	DATE
PATENT INFORMATION:	US 20050187192	A1	20050825
APPLICATION INFO.:	US 2004-783927	A1	20040220 (10)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	Madeline I. Johnston, Esq., KING & SPALDING LLP, 45th Floor, 191 Peachtree Street, N.E., Atlanta, GA, 30303, US		
NUMBER OF CLAIMS:	65		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	2 Drawing Page(s)		
LINE COUNT:	2757		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

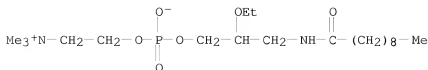
AB Provided are compounds, methods and pharmaceutical compositions for treating a host, especially a human, infected with a togavirus, herpes virus and/or coronavirus, and in particular SARS-CoV, cytomegalovirus or varicella-zoster virus. The method in one embodiment comprises administering to that host an effective amount of an anti-togavirus, anti-herpes virus and/or anti-coronavirus phospholipid or a pharmaceutically acceptable salt or prodrug thereof. The phospholipid compound is, e.g., a 3-alkylamido-2-alkoxypropylphosphocholine compound or salt thereof. The compound may be administered alone or in combination and/or alternation with one or more other anti-viral agents.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 252371-27-0 443882-90-4 443882-91-5  
(phospholipids for treatment of infection by togaviruses, herpes viruses and coronaviruses)  
RN 252371-27-0 USPATFULL  
CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium,  
7-(decyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide  
(9CI) (CA INDEX NAME)

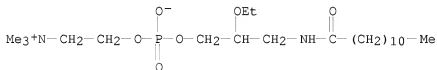


RN 443882-90-4 USPATFULL  
CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium,  
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)  
(CA INDEX NAME)



RN 443882-91-5 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)  
(CA INDEX NAME)



L3 ANSWER 42 OF 50 USPATFULL on STN

ACCESSION NUMBER: 2005:215515 USPATFULL

TITLE: Methods and compositions for the treatment of  
respiratory syncytial virus

INVENTOR(S): Kucera, Louis S., Pfafftown, NC, UNITED STATES  
Morris-Natschke, Susan L., Apex, NC, UNITED STATES  
Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES  
Fleming, Ronald A., Cary, NC, UNITED STATES  
Hess, Jan V., Hurdle Mills, NC, UNITED STATES  
Huang, Yunsheng, Apex, NC, UNITED STATES  
Read, Russ H., Rural Hall, NC, UNITED STATES  
Furman, Phillip A., Durham, NC, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 20050187191	A1	20050825
APPLICATION INFO.:	US 2004-781894	A1	20040220 (10)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	MORGAN LEWIS & BOCKIUS LLP, 1111 PENNSYLVANIA AVENUE NW, WASHINGTON, DC, 20004, US		
NUMBER OF CLAIMS:	39		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	1 Drawing Page(s)		
LINE COUNT:	2105		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention includes compounds useful for inhibiting RSV replication  
and treating a host infected with RSV. The invention also includes  
methods of treating a host infected with RSV by administering to the  
host an anti-RSV effective amount of a compound of the invention.

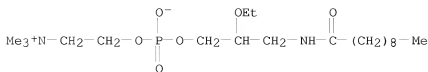
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 443882-90-4, KPC 11 443882-91-5, KPC 15

(comps. for treatment of respiratory syncytial virus)

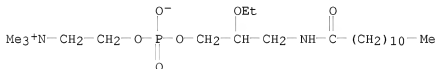
RN 443882-90-4 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium,  
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)  
(CA INDEX NAME)



RN 443882-91-5 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)  
(CA INDEX NAME)



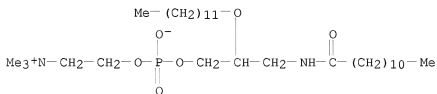
IT 207298-91-7 207298-93-9 252371-27-0

443882-96-0

(comps. for treatment of respiratory syncytial virus)

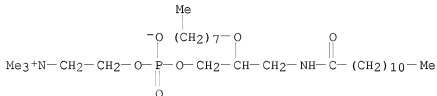
RN 207298-91-7 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-(dodecyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide  
(9CI) (CA INDEX NAME)



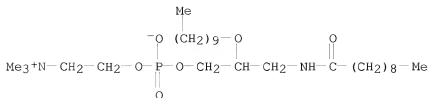
RN 207298-93-9 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
4-hydroxy-N,N,N-trimethyl-7-(octyloxy)-10-oxo-, inner salt, 4-oxide  
(9CI) (CA INDEX NAME)

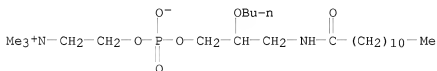


RN 252371-27-0 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium,  
7-(decyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide  
(9CI) (CA INDEX NAME)



RN 443882-96-0 USPATFULL  
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
 7-butoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)  
 (CA INDEX NAME)



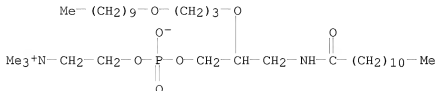
L3 ANSWER 43 OF 50 USPATFULL on STN  
 ACCESSION NUMBER: 2005:93372 USPATFULL  
 TITLE: Lipid analogs for treating viral infections  
 INVENTOR(S): Kucera, Louis S., Pfafftown, NC, UNITED STATES  
 Morris-Natschke, Susan L., Apex, NC, UNITED STATES  
 Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES  
 PATENT ASSIGNEE(S): Wake Forest University, Winston-Salem, NC, UNITED STATES (U.S. corporation)  
 University of North Carolina at Chapel Hill, Chapel Hill, NC, UNITED STATES (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 20050080050	A1	20050414
	US 7141557	B2	20061128
APPLICATION INFO.:	US 2004-943923	A1	20040920 (10)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1999-412539, filed on 4 Oct 1999, PENDING Division of Ser. No. US 1997-793470, filed on 2 May 1997, GRANTED, Pat. No. US 5962437 A 371 of International Ser. No. WO 1995-US10111, filed on 7 Aug 1995		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	MORGAN LEWIS & BOCKIUS LLP, 1111 PENNSYLVANIA AVENUE NW, WASHINGTON, DC, 20004, US		
NUMBER OF CLAIMS:	34		
EXEMPLARY CLAIM:	1-106		
LINE COUNT:	960		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			
AB	A method of treating viral infections, and in particular HIV-1, hepatitis B virus, and herpes virus, is disclosed. The method comprises administering to a subject in need of such treatment an infection-controlling amount of a phospholipid or phospholipid derivative.		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			
IT	178172-98-0 178172-99-1 178173-00-7 178173-01-8		

(phospholipids for treating viral infections and tumors)

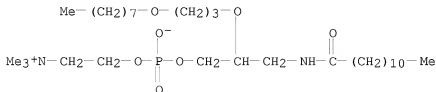
RN 178172-98-0 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-[3-(decyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,  
4-oxide (9CI) (CA INDEX NAME)



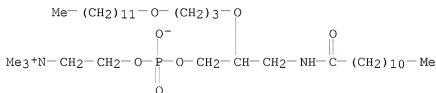
RN 178172-99-1 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt,  
4-oxide (9CI) (CA INDEX NAME)



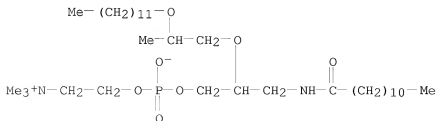
RN 178173-00-7 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,  
4-oxide (9CI) (CA INDEX NAME)



RN 178173-01-8 USPATFULL

CN Ethanaminium, 2-[[[2-(2-(dodecyloxy)propoxy)-3-[(1-oxododecyl)amino]propoxy]hydroxyphosphinyl]oxy]-N,N,N-trimethyl-, inner salt (CA INDEX NAME)





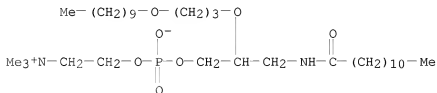
L3 ANSWER 44 OF 50 USPATFULL on STN  
 ACCESSION NUMBER: 2004:328020 USPATFULL  
 TITLE: Lipid analogs for treating viral infections  
 INVENTOR(S): Kucera, Louis S., Pfafftown, NC, UNITED STATES  
 Morris-Natschke, Susan L., Apex, NC, UNITED STATES  
 Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES  
 PATENT ASSIGNEE(S): Wake Forest University, Winston-Salem, NC (U.S. corporation)  
 University of North Carolina at Chapel Hill, Chapel Hill, NC (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 20040259845	A1	20041223
	US 7135584	B2	20061114
APPLICATION INFO.:	US 2004-889127	A1	20040713 (10)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1999-412539, filed on 4 Oct 1999, ABANDONED Division of Ser. No. US 1997-793470, filed on 2 May 1997, GRANTED, Pat. No. US 5962437 A 371 of International Ser. No. WO 1995-US10111, filed on 7 Aug 1995, PENDING		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	MORGAN LEWIS & BOCKIUS LLP, 1111 PENNSYLVANIA AVENUE NW, WASHINGTON, DC, 20004		
NUMBER OF CLAIMS:	19		
EXEMPLARY CLAIM:	CLM-1-106		
LINE COUNT:	903		

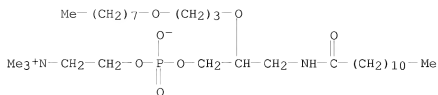
CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
 AB A method of treating viral infections, and in particular HIV-1, hepatitis B virus, and herpes virus, is disclosed. The method comprises administering to a subject in need of such treatment an infection-controlling amount of a phospholipid or phospholipid derivative.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 178172-98-0 178172-99-1 178173-00-7  
 178173-01-8  
 (phospholipids for treating viral infections and tumors)  
 RN 178172-98-0 USPATFULL  
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-amium,  
 7-[3-(decyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,  
 4-oxide (9CI) (CA INDEX NAME)

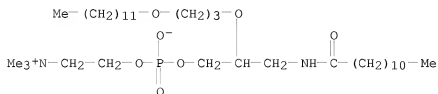


RN 178172-99-1 USPATFULL  
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-amium,  
 4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt,  
 4-oxide (9CI) (CA INDEX NAME)



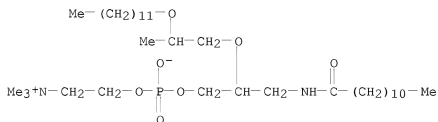
RN 178173-00-7 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,  
4-oxide (9CI) (CA INDEX NAME)



RN 178173-01-8 USPATFULL

CN Ethanaminium, 2-[[[2-(dodecyloxy)propoxy]-3-[(1-oxododecyl)amino]propoxy]hydroxyphosphinyl]oxy]-N,N,N-trimethyl-, inner salt (CA INDEX NAME)



L3 ANSWER 45 OF 50 USPATFULL on STN

ACCESSION NUMBER: 2000:24634 USPATFULL

TITLE: Method of treating hepatitis virus infections  
Morris-Natschke, Susan L., Apex, NC, United States  
Kucera, Louis S., Pfafftown, NC, United States

INVENTOR(S): Wake Forest University, Winston-Salem, NC, United States (U.S. corporation)  
PATENT ASSIGNEE(S): University of North Carolina at Chapel Hill, Chapel Hill, NC, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6030960		20000229
APPLICATION INFO.:	US 1998-102308		19980622 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 1995-465947, filed on 6 Jun 1995, now patented, Pat. No. US 5770584 which is a continuation-in-part of Ser. No. US 1993-74943, filed on 10 Jun 1993, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		

PRIMARY EXAMINER: Wilson, James O.  
 LEGAL REPRESENTATIVE: Akin, Gump, Strauss, Hauer & Feld, L.L.P.  
 NUMBER OF CLAIMS: 44  
 EXEMPLARY CLAIM: 1  
 NUMBER OF DRAWINGS: 1 Drawing Figure(s); 1 Drawing Page(s)  
 LINE COUNT: 1631

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method of treating hepatitis virus infection is disclosed. The method comprising administering to a human subject in need of such treatment an effective hepatitis virus-combatting amount of an alkyl lipid or alkyl lipid derivative.

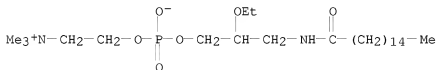
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 112989-01-2P 112989-02-3P

(preparation of phospholipids for combating hepatitis B virus)

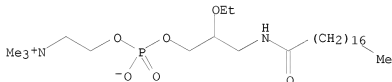
RN 112989-01-2 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,  
 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA  
 INDEX NAME)



RN 112989-02-3 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium,  
 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA  
 INDEX NAME)



L3 ANSWER 46 OF 50 USPATFULL on STN

ACCESSION NUMBER: 1999:121339 USPATFULL

TITLE: Lipid analogs for treating viral infections

INVENTOR(S): Kucera, Louis S., Pfafftown, NC, United States  
 Morris-Natschke, Susan L., Apex, NC, United States  
 Ishaq, Khalid S., Chapel Hill, NC, United States

PATENT ASSIGNEE(S): Wake Forest University, Winston-Salem, NC, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5962437		19991005
	WO 9606620		19960307
APPLICATION INFO.:	US 1997-793470		19970502 (8)
	WO 1995-US10111		19950807
			19970502 PCT 371 date
			19970502 PCT 102(e) date
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1994-314901, filed on 29 Sep 1994, now abandoned which is a continuation-in-part		

of Ser. No. US 1994-297416, filed on 29 Aug 1994, now abandoned

DOCUMENT TYPE: Utility  
FILE SEGMENT: Granted  
PRIMARY EXAMINER: Raymond, Richard L.  
ASSISTANT EXAMINER: Coleman, Brenda  
LEGAL REPRESENTATIVE: Schwegman, Lundberg, Woessner & Kluth, P.A.  
NUMBER OF CLAIMS: 33  
EXEMPLARY CLAIM: 1  
LINE COUNT: 1159

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method of treating viral infections, and in particular HIV-1, hepatitis B virus and herpes viruses, is disclosed. The method comprising administering to a subject in need of such treatment an infection-combating amount of a phospholipid or phospholipid derivative.

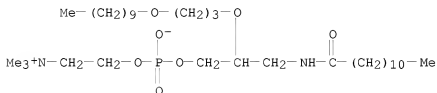
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 178172-98-0 178172-99-1 178173-00-7  
178173-01-8

(phospholipids for treating viral infections and tumors)

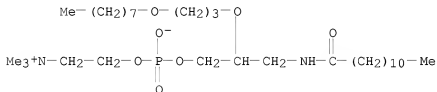
RN 178172-98-0 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-[3-(decyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,  
4-oxide (9CI) (CA INDEX NAME)



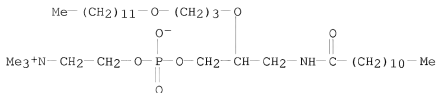
RN 178172-99-1 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt,  
4-oxide (9CI) (CA INDEX NAME)



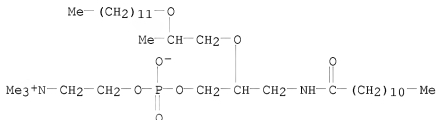
RN 178173-00-7 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,  
4-oxide (9CI) (CA INDEX NAME)



RN 178173-01-8 USPATFULL

CN Ethanaminium, 2-[[[2-(dodecyloxy)propoxy]-3-[(1-oxododecyl)amino]propoxy]hydroxyphosphinyl]oxy]-N,N,N-trimethyl-, inner salt (CA INDEX NAME)



L3 ANSWER 47 OF 50 USPATFULL on STN

ACCESSION NUMBER: 1998:72609 USPATFULL

TITLE: Method of treating hepatitis virus infections

INVENTOR(S): Kucera, Louis S., Pfafftown, NC, United States

Morris-Natschke, Susan L., Apex, NC, United States

PATENT ASSIGNEE(S): Wake Forest University, Winston-Salem, NC, United States (U.S. corporation)  
University of North Carolina, Chapel Hill, NC, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5770584		19980623
APPLICATION INFO.:	US 1995-465947		19950606 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1993-74943, filed on 10 Jun 1993, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Wilson, James O.		
LEGAL REPRESENTATIVE:	Schwegman, Lundberg, Woessner & Kluth, P.A.		
NUMBER OF CLAIMS:	14		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	1 Drawing Figure(s); 1 Drawing Page(s)		
LINE COUNT:	1527		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method of treating hepatitis virus infection is disclosed. The method comprising administering to a human subject in need of such treatment an effective hepatitis virus-combatting amount of an alkyl lipid or alkyl lipid derivative.

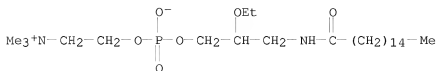
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 112989-01-2P 112989-02-3P 209532-02-5P  
209532-03-6P

(alkyl lipids for treating hepatitis virus infections)

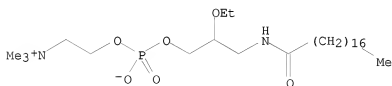
RN 112989-01-2 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,  
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA  
INDEX NAME)



RN 112989-02-3 USPATFULL

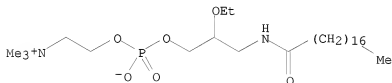
CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium,  
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA  
INDEX NAME)



RN 209532-02-5 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium,  
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide, (+)-  
(9CI) (CA INDEX NAME)

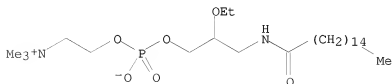
Rotation (+).



RN 209532-03-6 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,  
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide, (+)-  
(9CI) (CA INDEX NAME)

Rotation (+).



L3 ANSWER 48 OF 50 USPATFULL on STN

ACCESSION NUMBER: 85:76852 USPATFULL

TITLE: Phospholipid derivatives, and pharmaceutical  
composition of the same

INVENTOR(S): Teraji, Tsutomu, Osaka, Japan

Todo, Eishiro, Toyonaka, Japan  
 Shimazaki, Norihiko, Toyonaka, Japan  
 Oku, Teruo, Osaka, Japan  
 Namiki, Takayuki, Minoo, Japan  
 PATENT ASSIGNEE(S): Fujisawa Pharmaceutical Co., Ltd., Osaka, Japan  
 (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4562179		19851231
APPLICATION INFO.:	US 1983-482447		19830406 (6)

	NUMBER	DATE
PRIORITY INFORMATION:	GB 1982-11284	19820419
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Sutto, Anton H.	
LEGAL REPRESENTATIVE:	Oblon, Fisher, Spivak, McClelland & Maier	
NUMBER OF CLAIMS:	8	
EXEMPLARY CLAIM:	1,2	
LINE COUNT:	542	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB New phospholipid derivatives represented by the formula: ##STR1##  
 wherein R.sup.1 is alkyl, alkoxy or alkanoylamino;

R.sup.2 is lower alkyl, lower alkanesulfonyl or arenesulfonyl;

R.sup.3, R.sup.4 and R.sup.5 are each lower alkyl;

n is 0 or 1

A is lower alkylene optionally interrupted by a --NHCO-- group; and

Q is oxido or lower alkoxy;

provided that n is 0 or A is lower alkylene interrupted by a --NHCO--  
 group, or Q is lower alkoxy, when R.sup.1 is alkoxy and R.sup.2 is lower  
 alkyl; and pharmaceutically acceptable salts thereof, which exhibit  
 antitumor activity.

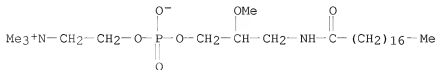
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 88876-07-7P

(preparation of)

RN 88876-07-7 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium,  
 4-hydroxy-7-methoxy-N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA  
 INDEX NAME)



L3 ANSWER 49 OF 50 USPATFULL on STN

ACCESSION NUMBER: 85:3300 USPATFULL

TITLE: Certain glycerol-phosphoryl choline derivatives,  
 compositions containing same and method of using same

INVENTOR(S): Teraji, Tsutomu, Osaka, Japan  
 Todo, Eishiro, Toyonaka, Japan  
 Shimazaki, Norihiko, Suita, Japan  
 Oku, Teruo, Osaka, Japan  
 Namiki, Takayuki, Minoo, Japan  
 PATENT ASSIGNEE(S): Fujisawa Pharmaceutical Co., Ltd., Osaka, Japan  
 (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 4493832		19850115
APPLICATION INFO.:	US 1982-391918		19820624 (6)

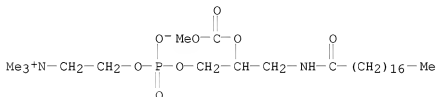
	NUMBER	DATE
PRIORITY INFORMATION:	GB 1981-20612	19810703
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Rotman, Alan L.	
LEGAL REPRESENTATIVE:	Oblon, Fisher, Spivak, McClelland & Maier	
NUMBER OF CLAIMS:	7	
EXEMPLARY CLAIMS:	1,7	
LINE COUNT:	1268	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB New phospholipid derivatives represented by the formula: ##STR1## wherein R.sup.1 is alkyl, alkoxy, alkylthio, ar(lower)alkoxy or alkanoylamino; R.sup.2 is lower alkyl or ar(lower)alkyl; n is an integer of 0 or 1; A is lower alkylene; R.sup.3 is pyridinio or a group of the formula: ##STR2## in which R.sup.5, R.sup.6 and R.sup.7 are each hydrogen or lower alkyl; and R.sup.4 is hydrogen or lower alkyl; and pharmaceutically acceptable salt thereof, which exhibit anti-hypertensive activity.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 86478-39-9P  
 (preparation of)  
 RN 86478-39-9 USPATFULL  
 CN 3,5,8,10-Tetraoxa-4-phosphaundecan-1-aminium,  
 4-hydroxy-N,N-trimethyl-9-oxo-7-[[[(1-oxooctadecyl)amino]methyl]-,  
 inner salt, 4-oxide (CA INDEX NAME)



L3 ANSWER 50 OF 50 USPATFULL on STN  
 ACCESSION NUMBER: 80:44225 USPATFULL  
 TITLE: Structural analogs of natural phospholipids  
 INVENTOR(S): Oette, Kurt, Cologne, Germany, Federal Republic of  
 Tschung, Tschae S., Rodenkirchen, Germany, Federal  
 Republic of  
 PATENT ASSIGNEE(S): A. Nattermann & Cie. GmbH, Germany, Federal Republic of  
 (non-U.S. corporation)

NUMBER	KIND	DATE
--------	------	------



PATENT INFORMATION:	US 4221732	19800909
APPLICATION INFO.:	US 1979-38354	19790511 (6)

	NUMBER	DATE
PRIORITY INFORMATION:	DE 1978-2820893	19780512
DOCUMENT TYPE:	Utility	
FILE SEGMENT:	Granted	
PRIMARY EXAMINER:	Niebling, John F.	
LEGAL REPRESENTATIVE:	Flocks, Karl W.	
NUMBER OF CLAIMS:	2	
EXEMPLARY CLAIM:	1	
LINE COUNT:	412	

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Structural analogs of natural phospholipids of the general formulae ##STR1## where R.sub.1 and R.sub.2 represent either hydrogen and/or saturated or unsaturated straight-chain and branched acyl radicals with 2 to 24 C-atoms and R.sub.3 an amino group or a substituted amino group of the formula ##STR2## and n is a number from 1-3, are useful in the preparation of stable liposomes useful as vehicles for pharmaceutical preparations.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 74471-25-3P 74471-27-5P 74471-28-6P  
74471-29-7P 74471-30-0P 74487-77-7P  
74487-78-8P 74487-79-9P

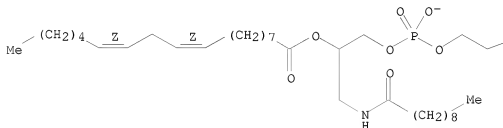
(preparation of, as liposome)

RN 74471-25-3 USPATFULL

CN 3,5,8-Trioxa-4-phosphahexacos-17,20-dien-1-aminium,  
4-hydroxy-N,N,N-trimethyl-9-oxo-7-[[1-(1-oxodecyl)amino]methyl]-, inner  
salt, 4-oxide, (Z,Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A



PAGE 1-B

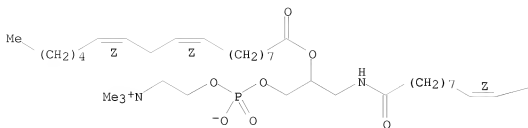
— N<sup>+</sup>Me<sub>3</sub>

RN 74471-27-5 USPATFULL

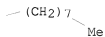
CN 3,5-Dioxa-9-aza-4-phosphahexacos-18-en-1-aminium,  
4-hydroxy-N,N,N-trimethyl-10-oxo-7-[[1-(1-oxo-9,12-octadecadienyl)oxy]-,  
inner salt, 4-oxide, (Z,Z,Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A



PAGE 1-B

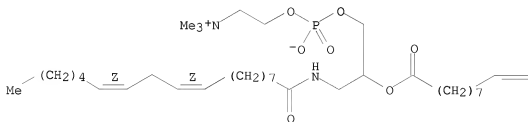


RN 74471-28-6 USPATFULL

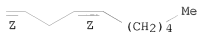
CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-18,21-dien-1-aminium,  
4-hydroxy-N,N,N-trimethyl-10-oxo-7-[(1-oxo-9,12-octadecadienyl)oxy]-,  
inner salt, 4-oxide, (all-Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A

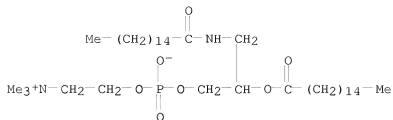


PAGE 1-B



RN 74471-29-7 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,  
4-hydroxy-N,N,N-trimethyl-10-oxo-7-[(1-oxohexadecyl)oxy]-, inner salt,  
4-oxide (CA INDEX NAME)

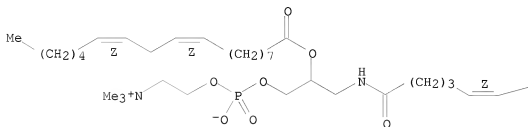


RN 74471-30-0 USPATFULL

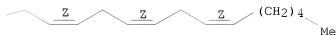
CN 3,5-Dioxa-9-aza-4-phosphanonacosa-14,17,20,23-tetraen-1-aminium,  
4-hydroxy-N,N,N-trimethyl-10-oxo-7-[(1-oxo-9,12-octadecadienyl)oxy]-,  
inner salt, 4-oxide, (all-Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A



PAGE 1-B

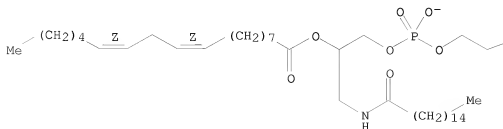


RN 74487-77-7 USPATFULL

CN 3,5,8-Trioxa-4-phosphahexacosa-17,20-dien-1-aminium,  
4-hydroxy-N,N,N-trimethyl-9-oxo-7-[[ (1-oxohexadecyl)amino]methyl]-,  
inner salt, 4-oxide, (Z,Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A

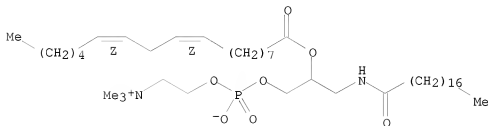


— N<sup>+</sup>Me<sub>3</sub>

RN 74487-78-8 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium,  
4-hydroxy-N,N,N-trimethyl-9-oxo-7-[(1-oxo-9,12-octadecadienyl)oxy]-,  
inner salt, 4-oxide, (Z,Z)- (9CI) (CA INDEX NAME)

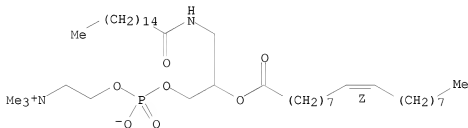
Double bond geometry as shown.



RN 74487-79-9 USPATFULL

CN 3,5,8-Trioxa-4-phosphahexacos-17-en-1-aminium,  
4-hydroxy-N,N,N-trimethyl-9-oxo-7-[[ (1-oxohexadecyl)amino]methyl]-,  
inner salt, 4-oxide, (Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



=> d his

(FILE 'HOME' ENTERED AT 11:38:48 ON 21 JAN 2009)

FILE 'REGISTRY' ENTERED AT 11:39:05 ON 21 JAN 2009

L1 STRUCTURE UPLOADED

L2 68 S L1 FULL

FILE 'MEDLINE, CAPLUS, WPIDS, USPATFULL' ENTERED AT 11:39:33 ON 21 JAN 2009

L3 50 S L2

=> s 13 and (viral or antiviral or virus or RSV)

L4 24 L3 AND (VIRAL OR ANTIVIRAL OR VIRUS OR RSV)

=> d 14 1-24 ibib, abs, hitstr

L4 ANSWER 1 OF 24 MEDLINE on STN  
 ACCESSION NUMBER: 1991202492 MEDLINE  
 DOCUMENT NUMBER: PubMed ID: 2016713  
 TITLE: In vitro evaluation of phosphocholine and quaternary ammonium containing lipids as novel anti-HIV agents.  
 AUTHOR: Meyer K L; Marasco C J Jr; Morris-Natschke S L; Ishaq K S; Piantadosi C  
 CORPORATE SOURCE: University of North Carolina, School of Pharmacy, Division of Medicinal Chemistry and Natural Products, Chapel Hill 27599.  
 CONTRACT NUMBER: CA 12197 (United States NCI)  
 CA 42216 (United States NCI)  
 RR 05404 (United States NCRR)  
 SOURCE: Journal of medicinal chemistry, (1991 Apr) Vol. 34, No. 4, pp. 1377-83.  
 Journal code: 9716531. ISSN: 0022-2623.  
 PUB. COUNTRY: United States  
 DOCUMENT TYPE: (COMPARATIVE STUDY)  
 Journal; Article; (JOURNAL ARTICLE)  
 (RESEARCH SUPPORT, NON-U.S. GOV'T)  
 (RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals; AIDS  
 ENTRY MONTH: 199105  
 ENTRY DATE: Entered STN: 7 Jun 1991  
 Last Updated on STN: 3 Feb 1997  
 Entered Medline: 21 May 1991

AB A series of synthetic lipids containing a two- or three-carbon backbone substituted with a thio, oxy, or amidoalkyl functionality and either a phosphocholine or quaternary ammonium moiety was evaluated as potential anti-HIV-1 agents. Several analogues were identified as possessing activity with the most promising compound being rac-3-octadecanamido-2-ethoxypropylphosphocholine (8). Compound 8 exhibited an IC50 for the inhibition of plaque formation of 0.16 microM which was 84-fold lower than the IC50 value determined for CEM-SS cell growth inhibition. Initial mechanistic studies have indicated that these compounds, unlike AZT, are not reverse transcriptase (RT) inhibitors, but instead appear to inhibit a late step in HIV replication involving virus assembly and infectious virus production. Since these lipids are acting via a different mechanism, they represent an alternative approach to the chemotherapeutic treatment of AIDS as well as candidates for combination therapy with AZT.

L4 ANSWER 2 OF 24 CAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 2006:198407 CAPLUS  
 DOCUMENT NUMBER: 144:403777  
 TITLE: Using small molecules to overcome drug resistance induced by a viral oncogene  
 AUTHOR(S): Smukste, Inese; Bhalala, Oneil; Persico, Marco; Stockwell, Brent R.  
 CORPORATE SOURCE: Department of Biological Sciences and Department of Chemistry, Fairchild Center, Columbia University, New York, NY, 10027, USA  
 SOURCE: Cancer Cell (2006), 9(2), 133-146  
 CODEN: CCARCI; ISSN: 1535-6108  
 PUBLISHER: Cell Press  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB We used small mol. screening to discover compds. and mechanisms for overcoming E6 oncogene-mediated drug resistance. Using high-throughput screening in isogenic cell lines, we identified compds. that potentiate

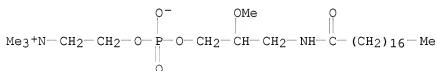
doxorubicin's lethality in E6-expressing colon cancer cells. Such compds. included quaternary ammonium salts, protein synthesis inhibitors, 11-deoxyprostaglandins, and two addnl. classes of compds.-analogs of 1,3-bis(4-morpholinylmethyl)-2-imidazolidinethione (a thiourea) and acylated secondary amines that we named indoxins. Indoxins upregulated topoisomerase II $\alpha$ , the target of doxorubicin, thereby increasing doxorubicin lethality. We developed a photolabeling strategy to identify targets of indoxin and discovered a nuclear actin-related protein complex as a candidate indoxin target.

IT 88876-07-7

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(small mols. which overcome drug resistance induced by a viral oncogene)

RN 88876-07-7 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium,  
4-hydroxy-7-methoxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



REFERENCE COUNT: 58 THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 24 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 2005:904330 CAPLUS

DOCUMENT NUMBER: 143:222464

TITLE: Phospholipids for the treatment of infection by  
togaviruses, herpes viruses and coronaviruses  
INVENTOR(S): Fleming, Ronald A.; Hes, Jan V.; Huang, Yunsheng;  
Read, Russ H.; Morris-Natschke, Susan L.; Ishaq,  
Khalid S.; Kucera, Louis S.; Furman, Phillip A.

PATENT ASSIGNEE(S): Kucera Pharmaceutical Company, USA

SOURCE: U.S. Pat. Appl. Publ., 36 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

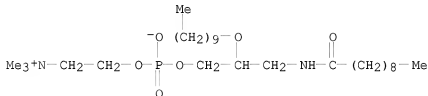
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

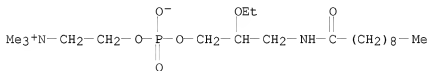
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20050187192	A1	20050825	US 2004-783927	20040220
PRIORITY APPLN. INFO.:			US 2004-783927	20040220
OTHER SOURCE(S):	MARPAT 143:222464			

AB Provided are compds., methods and pharmaceutical compns. for treating a host, especially a human, infected with a togavirus, herpes virus and/or coronavirus, and in particular SARS-CoV, cytomegalovirus or varicella-zoster virus. The method in one embodiment comprises administering to that host an effective amount of an anti-togavirus, anti-herpes virus and/or anti-coronavirus phospholipid or a pharmaceutically acceptable salt or prodrug thereof. The phospholipid compound is, e.g., a 3-alkylamido-2-alkoxypropylphosphocholine compound or salt thereof. The compound may be administered alone or in combination and/or alternation with one or more other antiviral agents. The EC50 of an alkylamido-2-alkoxypropylphosphocholine against varicella

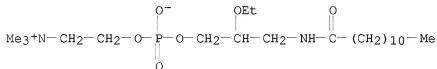
zoster virus was 0.48 µg/mL.  
 IT 252371-27-0 443882-90-4 443882-91-5  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
 (Biological study); USES (Uses)  
 (phospholipids for treatment of infection by togaviruses, herpes  
 viruses and coronaviruses)  
 RN 252371-27-0 CAPLUS  
 CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium,  
 7-(decyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)  
 (CA INDEX NAME)



RN 443882-90-4 CAPLUS  
 CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium,  
 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA  
 INDEX NAME)



RN 443882-91-5 CAPLUS  
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA  
 INDEX NAME)



L4 ANSWER 4 OF 24 CAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 2005:902611 CAPLUS  
 DOCUMENT NUMBER: 143:241938  
 TITLE: Methods and compositions for the treatment of  
 respiratory syncytial virus  
 INVENTOR(S): Kucera, Louis S.; Morris-Natschke, Susan L.; Ishaq,  
 Khalid S.; Fleming, Ronald A.; Hess, Jan V.; Huang,  
 Yunsheng; Read, Russ H.; Furman, Phillip A.  
 PATENT ASSIGNEE(S): USA  
 SOURCE: U.S. Pat. Appl. Publ., 29 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 20050187191	A1	20050825	US 2004-781894	20040220
WO 2005099719	A2	20051027	WO 2005-US3972	20050209
WO 2005099719	A3	20070322		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.: US 2004-781894 A 20040220

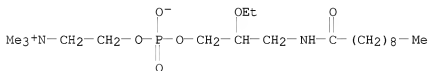
OTHER SOURCE(S): MARPAT 143:241938

AB The invention includes compds. useful for inhibiting RSV replication and treating a host infected with RSV. The invention also includes methods of treating a host infected with RSV by administering to the host an anti-RSV effective amount of a compound of the invention.

IT 443882-90-4, KPC 11 443882-91-5, KPC 15  
 RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (compns. for treatment of respiratory syncytial virus)

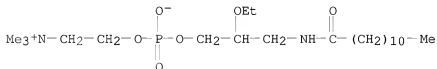
RN 443882-90-4 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



RN 443882-91-5 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



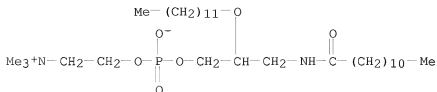
IT 207298-91-7 207298-93-9 252371-27-0  
 443882-96-0  
 RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (compns. for treatment of respiratory syncytial virus)

RN 207298-91-7 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,

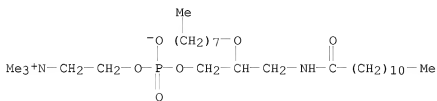


7-(dodecyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide  
(9CI) (CA INDEX NAME)



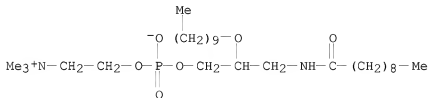
RN 207298-93-9 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
4-hydroxy-N,N,N-trimethyl-7-(octyloxy)-10-oxo-, inner salt, 4-oxide (9CI)  
(CA INDEX NAME)



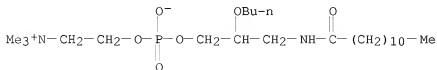
RN 252371-27-0 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium,  
7-(decyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)  
(CA INDEX NAME)



RN 443882-96-0 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-butoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA  
INDEX NAME)



L4 ANSWER 5 OF 24 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1998:435743 CAPLUS

DOCUMENT NUMBER: 129:90448

ORIGINAL REFERENCE NO.: 129:18491a,18494a

TITLE: Method of treating hepatitis virus

infections  
 INVENTOR(S): Kucera, Louis S.; Morris-Natschke, Susan L.  
 PATENT ASSIGNEE(S): Wake Forest University, USA; University of North Carolina  
 SOURCE: U.S., 17 pp., Cont.-in-part of U. S. Ser. No. 74,943, abandoned.  
 CODEN: USXXAM  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5770584	A	19980623	US 1995-465947	19950606
US 6030960	A	20000229	US 1998-102308	19980622
PRIORITY APPLN. INFO.:			US 1993-74943	B2 19930610
			US 1995-465947	A3 19950606

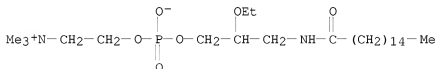
OTHER SOURCE(S): MARPAT 129:90448

AB A method of treating hepatitis virus infection is disclosed. The method involves administering to a human subject in need of such treatment an effective hepatitis virus-combating amount of an alkyl lipid or alkyl lipid derivative

IT 112989-01-2P 112989-02-3P 209532-02-5P  
 209532-03-6P  
 RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (alkyl lipids for treating hepatitis virus infections)

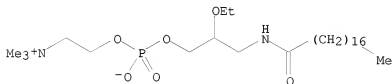
RN 112989-01-2 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,  
 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



RN 112989-02-3 CAPLUS

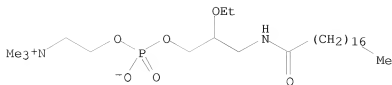
CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,  
 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



RN 209532-02-5 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,  
 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide, (+)-(9CI) (CA INDEX NAME)

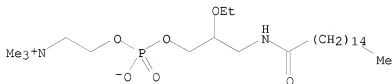
Rotation (+).



RN 209532-03-6 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,  
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide, (+)-  
(9CI) (CA INDEX NAME)

Rotation (+).



REFERENCE COUNT: 67 THERE ARE 67 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 24 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1998:205430 CAPLUS

DOCUMENT NUMBER: 128:316940

ORIGINAL REFERENCE NO.: 128:62637a,62640a

TITLE: In vitro evaluation and characterization of newly designed alkylamidophospholipid analogs as anti-human immunodeficiency virus type 1 agents

AUTHOR(S): Kucera, L. S.; Iyer, N.; Morris-Natschke, S. L.; Chen, S. Y.; Gumus, F.; Ishaq, K.; Herrmann, D. B. J.

CORPORATE SOURCE: Wake Forest University School Medicine, Winston-Salem, NC, USA

SOURCE: Antiviral Chemistry & Chemotherapy (1998), 9(2), 157-165

CODEN: ACCHEH; ISSN: 0956-3202

PUBLISHER: International Medical Press

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Our labs. first reported two novel classes of complex synthetic lipids, including alkylamidophosphocholines (PC lipid; CP-51) and alkylamidophosphate ester-linked lipid-AZT conjugates (lipid-AZT conjugates; CP-92), with selective and potent activity against human immunodeficiency virus type 1 (HIV-1). To extend these observations, we synthesized addnl. PC lipids and lipid-AZT conjugates (INK and INK-AZT conjugate) to evaluate their structure-activity relationships by testing for selectivity against infectious wild-type (wt) and drug-resistant HIV-1 replication, virus fusogenic activity and toxicity replication, virus fusogenic activity and toxicity for mouse bone marrow cells. PC lipid compds. with medium chain lengths at positions 1 and 2 gave an improved selective index (SI). INK-3, with 12 and 8 carbons and INK-15, with 10 and 12 carbons were among the most selective when evaluated in CEM-SS cells. INK-14, a lipid-AZT conjugate where AZT replaced the choline in PC lipid INK-3, gave the highest SI of >1250 against both infectious wt HIV-1 replication in CEM-SS cells and a clin. isolate in peripheral blood leukocytes. Notably, the PC lipid compds. INK-3 and INK-15, but not the lipid-AZT conjugate INK-14, were potent inhibitors of matched pairs of AZT-sensitive and AZT-resistant

HIV-1 clin. isolates. INK-3 also inhibited replication of HIV-2 and TIBO-resistant HIV-1, and inhibited HIV-1-mediated fusogenic activity by 78, 41 and 9% in a dose-dependent manner. The TC50 for mouse bone marrow cells was >100 µg/mL for CP-51 and 0.142-0.259 µg/mL for AZT. These data suggest that optimum PC lipid compds. are significantly less toxic than AZT and have high potential as novel therapeutic agents for AIDS.

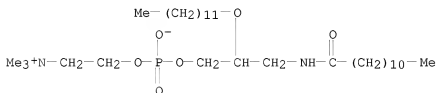
IT 207298-91-7P 207298-92-8P 207298-93-9P  
207298-94-0P 207298-95-1P 207298-97-3P  
207298-99-5P

RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(anti-HIV-1 activity and preparation of alkylamidophospholipid analogs)

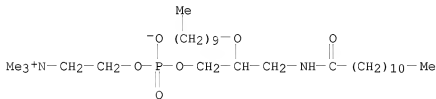
RN 207298-91-7 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-(dodecyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide  
(9CI) (CA INDEX NAME)



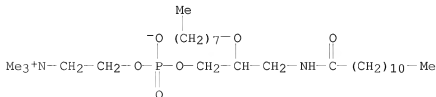
RN 207298-92-8 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-(decyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)  
(CA INDEX NAME)



RN 207298-93-9 CAPLUS

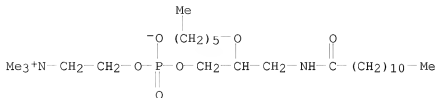
CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
4-hydroxy-N,N,N-trimethyl-7-(octyloxy)-10-oxo-, inner salt, 4-oxide (9CI)  
(CA INDEX NAME)



RN 207298-94-0 CAPLUS

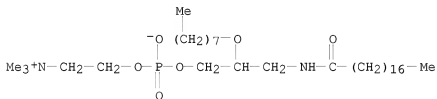
CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-(hexyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)

(CA INDEX NAME)



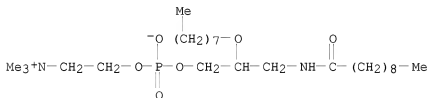
RN 207298-95-1 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium,  
4-hydroxy-N,N,N-trimethyl-7-(octyloxy)-10-oxo-, inner salt, 4-oxide (9CI)  
(CA INDEX NAME)



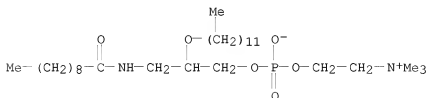
RN 207298-97-3 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium,  
4-hydroxy-N,N,N-trimethyl-7-(octyloxy)-10-oxo-, inner salt, 4-oxide (9CI)  
(CA INDEX NAME)



RN 207298-99-5 CAPLUS

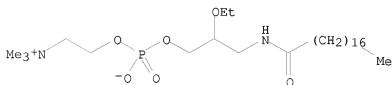
CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium,  
7-(dodecyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide  
(9CI) (CA INDEX NAME)



IT 112989-02-3, CP 51

RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(anti-HIV-1 activity and preparation of alkylamidophospholipid analogs)

RN 112989-02-3 CAPLUS  
 CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium,  
 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX  
 NAME)



REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 7 OF 24 CAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 1996:388263 CAPLUS  
 DOCUMENT NUMBER: 125:492/3  
 ORIGINAL REFERENCE NO.: 125:9233a,9236a  
 TITLE: Lipid analogs for treating viral infections  
 INVENTOR(S): Kucera, Louis S.; Morris-Natschke, Susan L.; Ishaq,  
 Khalid S.  
 PATENT ASSIGNEE(S): Wake Forest University, USA; Univ. of North Carolina  
 at Chapel Hill  
 SOURCE: PCI Int. Appl., 53 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9606620	A2	19960307	WO 1995-US10111	19950807
WO 9606620	A3	19960613		
W:	AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT			
RW:	KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG			
CA 2197319	A1	19960307	CA 1995-2197319	19950807
AU 9532166	A	19960322	AU 1995-32166	19950807
EP 781138	A2	19970702	EP 1995-928365	19950807
EP 781138	B1	20080521		
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE			
JP 10506619	T	19980630	JP 1995-508773	19950807
EP 1852121	A2	20071107	EP 2007-16369	19950807
EP 1852121	A3	20071121		
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE			
AT 395922	T	20080615	AT 1995-928365	19950807
US 5962437	A	19991005	US 1997-793470	19970502
US 7129227	B1	20061031	US 1999-412539	19991004
US 20040259845	A1	20041223	US 2004-889127	20040713
US 7135584	B2	20061114		
US 20050080050	A1	20050414	US 2004-943923	20040920
US 7141557	B2	20061128		
JP 2007056033	A	20070308	JP 2006-278049	20061011
US 20070099870	A1	20070503	US 2006-588313	20061027

US 7294621	B2	20071113		
US 20070105811	A1	20070510	US 2006-588308	20061027
US 7294619	B2	20071113		
US 20070105812	A1	20070510	US 2006-588311	20061027
US 7294620	B2	20071113		
US 20080293667	A1	20081127	US 2007-980819	20071031
PRIORITY APPLN. INFO.:			US 1994-297416	A 19940829
			US 1994-314901	A 19940929
			EP 1995-928365	A3 19950807
			JP 1996-508773	A3 19950807
			WO 1995-US10111	W 19950807
			US 1997-793470	A3 19970502
			US 1999-412539	B1 19991004
			US 1999-412253	A1 19991005
			US 2004-889127	A3 20040713
			US 2004-943923	A3 20040920
			US 2006-588313	A3 20061027

OTHER SOURCE(S): MARPAT 125:49273

AB A method of treating viral infections, in particular with HIV-1, hepatitis B virus, and herpes viruses, is disclosed. The method comprising administering to a subject in need of such treatment an infection-combating amount of a phospholipid or phospholipid derivative. For example, 1-dodecanamido-2-decylpropyl-3-phosphocholine showed IC50 value of 0.14  $\mu$ M against HIV-1 syncytial plaque formation.

IT 178172-98-0 178172-99-1 178173-00-7

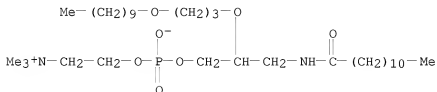
178173-01-8

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(phospholipids for treating viral infections and tumors)

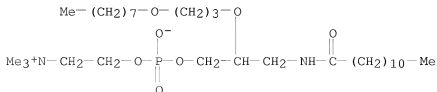
RN 178172-98-0 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[3-(decyloxy)propoxy]-4-hydroxy-N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



RN 178172-99-1 CAPLUS

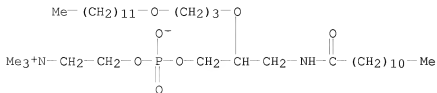
CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



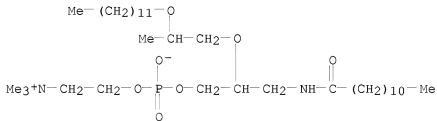
RN 178173-00-7 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,

7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,  
4-oxide (9CI) (CA INDEX NAME)



RN 178173-01-8 CAPLUS  
CN Ethanaminium, 2-[[[2-[2-(dodecyloxy)propoxy]-3-[(1-oxododecyl)amino]propoxy]hydroxyphosphinyl]oxy]-N,N,N-trimethyl-, inner salt (CA INDEX NAME)



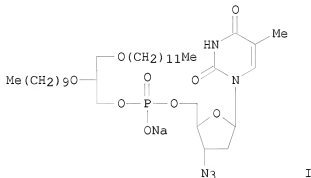
L4 ANSWER 8 OF 24 CAPLUS COPYRIGHT 2009 ACS on STN  
ACCESSION NUMBER: 1995:701769 CAPLUS  
DOCUMENT NUMBER: 123:112632  
ORIGINAL REFERENCE NO.: 123:20141a,20144a  
TITLE: Phospholipids for combating hepatitis B virus  
infection  
INVENTOR(S): Kucera, Louis S.; Morris-Natschke, Susan L.  
PATENT ASSIGNEE(S): Wake Forest University, USA; University of North  
Carolina  
SOURCE: PCT Int. Appl., 38 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9428908	A2	19941222	WO 1994-US5855	19940525
WO 9428908	A3	19950323		
W: AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, GE, HU, JP, KG, KP, KR, KZ, LK, LU, LV, MD, MG, MN, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, US, UZ, VN				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2164717	A1	19941222	CA 1994-2164717	19940525
AU 9470448	A	19950103	AU 1994-70448	19940525
EP 702556	A1	19960327	EP 1994-919231	19940525
EP 702556	B1	20021023		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
AT 226437	T	20021115	AT 1994-919231	19940525
PRIORITY APPLN. INFO.:			US 1993-74943	A 19930616



OTHER SOURCE(S):  
GI

MARPAT 123:112632



I

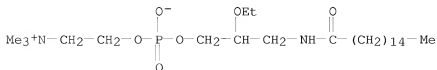
AB A method of treating infection with hepatitis B virus is disclosed. The method comprises administration of alkyl ether phospholipids and derivs. of formula DCH2XCH2YR1 [Y = S, O, NH, NMe, NHCO, NMeCO; R1 = (un)branched (un)saturated C10-20 alk(en/yn)yl; X = bond, CH2 (un)substituted by OH, alkyl, alkoxy, or alkylthio; D = (PO4)-E, N+R5R6FW Z-; E = (mono/di/trialkyl)ammonioalkyl or a nucleic acid base conjugate; F = alkylene; R5, R6 = H, alkyl; W = OH, SH; Z- = anion]. Several compds. were prepared. For example, etherification of isopropylidenglycerol with 1-bromododecane using KOH in PhMe and acid hydrolysis with HCl in MeOH-Et2O mixture gave 71% 3-dodecyloxy-1,2-propanediol. This underwent 1-O-tritylation with Ph3CCl in pyridine, 2-O-alkylation by 1-bromodecane and NaH in THF (51%), and detritylation by p-MeC6H4SO3H in CHCl3-MeOH (63%) to give 3-dodecyloxy-2-decyloxy-1-propanol. The latter underwent esterification with (PhO)2P(O)Cl (60%), hydrogenolysis of the Ph ester to the phosphatidic acid, and reesterification with AZT using DCC (22%) to give title compound (Na salt) I. Another compound, (±)-3-octadecanamido-2-ethoxypropyl-1-phosphocholine, inhibited HBV virion DNA and intracellular RI HBV DNA in expts. to a comparable or greater extent than the standard agent ddC.

IT 112989-01-2P 112989-02-3P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
(preparation of phospholipids for combating hepatitis B virus)

RN 112989-01-2 CAPLUS

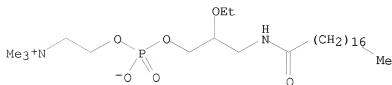
CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,  
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



RN 112989-02-3 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium,

7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



L4 ANSWER 9 OF 24 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1995:694404 CAPLUS

DOCUMENT NUMBER: 123:160151

ORIGINAL REFERENCE NO.: 123:28207a,28210a

TITLE: Membrane-interactive phospholipids inhibit HIV type 1-induced cell fusion and surface gp160/ gp120 binding to monoclonal antibody

AUTHOR(S): Krugner-Higby, Lisa; Goff, David; Edwards, Terri; Iyer, Nathan; Neufeld, Jay; Kute, Timothy; Morris-Natschke, Susan; Ishaq, Khalid; Piantadosi, Claude; Kucera, Louis S.

CORPORATE SOURCE: Wake Forest University, Winsto-Salem, NC, 27157-1064, USA

SOURCE: AIDS Research and Human Retroviruses (1995), 11(6), 705-12

CODEN: ARHRE7; ISSN: 0889-2229

PUBLISHER: Liebert

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Membrane-interactive phospholipids (PLs), previously evaluated for activity against HIV-1 in vitro, are known to affect late steps in viral replication. Studies were done to determine the effects of PL analogs on post-translational processing of HIV-1 proteins, binding of viral surface gp160/gp120 to CD4 receptor, and HIV-1-induced cell fusion. Results of this investigation indicated that PL alone (1-octadecanamido-2-ethoxypropyl-rac-3-phosphocholine, CP-51) and PL-AZT conjugate (1-octadecanamido-2-ethoxypropyl-rac-3-phospho-3'-azido-3'-deoxythymidine, CP-92) have no effect on HIV-1-induced syntheses or processing of gp160/gp120, pr51, p24, or p17 (including myristoylation) in infected cells. Progeny HIV-1 particles made in CP-92-treated H9IIIB cells contained gp120, pr51, and p24; however, these virus particles had reduced capacity to bind to CD4+ cells. Both CP-51 and CP-92 inhibited syncytium (cell fusion) formation between treated HIV-1-infected cells and uninfected CD4+ cells, and, they reduced HIV-1 gp160/gp120 binding to CD4+ cells and monoclonal antibody. These results suggest that anti-HIV-1 activity of PL compds. involves alteration of cell surface membranes and viral envelopes. Phospholipid compds. are a novel class of membrane interactive compds. with potential use in blocking the spread of HIV-1 infection and pathogenesis in AIDS.

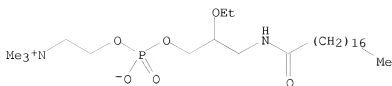
IT 112989-02-3, CP 51

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

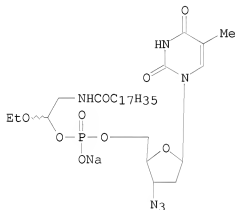
(membrane-interactive phospholipids inhibit HIV type 1-induced cell fusion and surface gp160/ gp120 binding to monoclonal antibody)

RN 112989-02-3 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-ammonium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



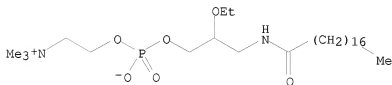
L4 ANSWER 10 OF 24 CAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 1991:185901 CAPLUS  
 DOCUMENT NUMBER: 114:185901  
 ORIGINAL REFERENCE NO.: 114:31415a,31418a  
 TITLE: Synthesis and evaluation of novel ether lipid nucleoside conjugates for anti-HIV-1 activity  
 AUTHOR(S): Piantadosi, Claude; Marasco, Canio J., Jr.; Morris-Natschke, Susan L.; Meyer, Karen L.; Gumus, Fatma; Surles, Jefferson R.; Ishaq, Khalid S.; Kucera, Louis S.; Iyer, Nathan; et al.  
 CORPORATE SOURCE: Sch. Pharm., Univ. North Carolina, Chapel Hill, NC, 27599, USA  
 SOURCE: Journal of Medicinal Chemistry (1991), 34(4), 1408-14  
 CODEN: JMCMAR; ISSN: 0022-2623  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 114:185901  
 GI



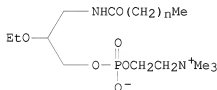
I

AB Combinations of an amidoalkylphosphocholine, C17H35CONHCH2CH(OEt)CH2OP(O)(O-)OCH2CH2N+Me3, and AZT were found to cause an apparent synergistic action in suppressing infectious HIV-1 replication. In addition, alkylamido, alkyloxy, and alkylthio ether lipids were chemical linked to anti-HIV-1 nucleosides (AZT and DDI) through phosphate and phosphonate linkages. These conjugates show promising in vitro anti-HIV-1 activity. Also, the conjugates have a 5-10-fold reduction in cell cytotoxicity compared to AZT alone. The most active compound, an alkylamido ether lipid-AZT conjugate, I was found to have a differential selectivity of 1793 in a syncytial plaque assay. In comparison, AZT alone has a value of 1281.  
 IT 112989-02-3  
 RL: RCT (Reactant); RACT (Reactant or reagent)

(anti-HIV-1 activity of)  
 RN 112989-02-3 CAPLUS  
 CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium,  
 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX  
 NAME)



L4 ANSWER 11 OF 24 CAPLUS COPYRIGHT 2009 ACS on STN  
 ACCESSION NUMBER: 1991:185881 CAPLUS  
 DOCUMENT NUMBER: 114:185881  
 ORIGINAL REFERENCE NO.: 114:31411a,31414a  
 TITLE: In vitro evaluation of phosphocholine and quaternary ammonium containing lipids as novel anti-HIV agents  
 AUTHOR(S): Meyer, Karen L.; Marasco, Canino J., Jr.;  
 Morris-Natschke, Susan L.; Ishaq, Khalid S.;  
 Piantadosi, Claude; Kucera, Louis S.  
 CORPORATE SOURCE: Sch. Pharm., Univ. North Carolina, Chapel Hill, NC,  
 27599, USA  
 SOURCE: Journal of Medicinal Chemistry (1991), 34(4), 1377-83  
 CODEN: JMCMAR; ISSN: 0022-2623  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 114:185881  
 GI

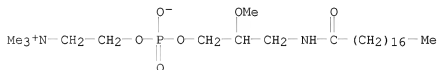


AB A series of synthetic lipids containing a two- or three-carbon backbone substituted with a thio, oxy, or amidoalkyl functionality and either a phosphocholine or quaternary ammonium moiety were evaluated as potential anti-HIV-1 agents. Several analogs were identified as possessing activity with the most promising compound being rac-3-octadecanamido-2-ethoxypropylphosphocholine (I). I exhibited an IC50 for the inhibition of plaque formation of 0.16  $\mu$ M which was 84-fold lower than the IC50 value determined for CEM-SS cell growth inhibition. Initial mechanistic studies have indicated that these compds., unlike AZT, are not reverse transcriptase (RT) inhibitors, but instead appear to inhibit a late step in HIV replication involving virus assembly and infectious virus production. Since these lipids are acting via a different, mechanism they represent an alternative approach to the chemotherapeutic treatment of AIDS as well as candidates for combination therapy with AZT.  
 IT 88876-07-7 112989-00-1 112989-01-2  
 112989-02-3  
 RL: RCT (Reactant); RACT (Reactant or reagent)

(anti-HIV-1 activity of)

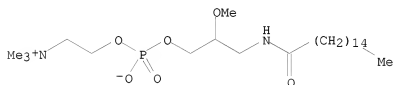
RN 88876-07-7 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium,  
4-hydroxy-7-methoxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA  
INDEX NAME)



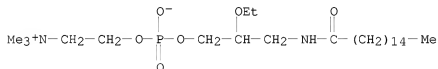
RN 112989-00-1 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,  
4-hydroxy-7-methoxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)  
(CA INDEX NAME)



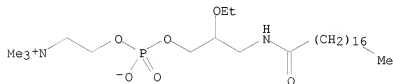
RN 112989-01-2 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,  
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX  
NAME)



RN 112989-02-3 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium,  
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX  
NAME)

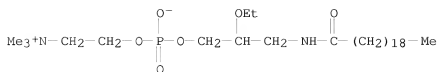


IT 149576-20-5P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation and anti-HIV-1 activity of)

RN 149576-20-5 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphanonacosan-1-aminium,  
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA  
INDEX NAME)



L4 ANSWER 12 OF 24 CAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1990:470710 CAPLUS

DOCUMENT NUMBER: 113:70710

ORIGINAL REFERENCE NO.: 113:11741a,11744a

TITLE: Novel membrane-interactive ether lipid analogs that inhibit infectious HIV-1 production and induce defective virus formation

AUTHOR(S): Kucera, Louis S.; Iyer, Nathan; Leake, Eva; Raben, Adam; Modest, Edward J.; Daniel, Larry W.; Piantadosi, Claude

CORPORATE SOURCE: Bowman Gray Sch. Med., Wake Forest Univ., Winston-Salem, NC, 27103, USA

SOURCE: AIDS Research and Human Retroviruses (1990), 6(4), 491-501

CODEN: ARHRE7; ISSN: 0889-2229

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A new class of membrane-active ether lipid (EL) analogs of platelet-activating factor were studied for in vitro anti-HIV-1 activity. Human T-cell (CEM-ss) monolayers or suspension cultures were used to determine effects of structural modifications of Type A phosphorus-containing and Type B nonphosphorus EL analogs on (a) the inhibitory concn.50 (IC50) for HIV-1 syncytial plaque formation and cell growth, and, (b) virus budding at the cell plasma membrane. Results indicate that representative Type A and Type B EL inhibit HIV-1 but not herpes simplex virus type 2 plaque formation when added before or up to 2 days after viral infection. Anti-HIV-1 activity does not involve direct inactivation of virus infectivity. Type A EL (IC50 range = 0.2-1.4 μM) with alkoxy, alkylthio, or alkyamido substitution at glycerol position 1 and ethoxy or methoxy substitution at position 2, and Type B compds. (IC50 range = 0.33-0.63 μM) with an inverse choline or nitrogen heterocyclic substitution at position 3 have selective activity against HIV-1-infected T-cells. EL treatment of HIV-1-infected cells is associated with subsequent release of reverse transcriptase activity, but infectious virus production is inhibited with time after infection. Electron microscopic examination of HIV-1-infected and EL-treated cells revealed absence of detectable budding virus at the plasma membrane but presence of intracytoplasmic vacuolar virus particles. EL analogs are a novel class of agents that induce defective intracytoplasmic vacuolar HIV-1 formation in T-cells. Being membrane interactive, EL are ideally suited for combination chemotherapy with DNA-interactive anti-HIV nucleoside analogs.

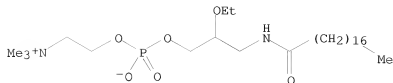
IT 112989-02-3

RL: BIOL (Biological study)

(human immunodeficiency virus infection response to)

RN 112989-02-3 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



L4 ANSWER 13 OF 24 USPATFULL on STN

ACCESSION NUMBER: 2008:334491 USPATFULL

TITLE: Lipid analogs for combating tumors

INVENTOR(S): Kucera, Louis S., Pfafftown, NC, UNITED STATES

Morris-Natschke, Susan L., Apex, NC, UNITED STATES

Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES

PATENT ASSIGNEE(S): Wake Forest University, Winston-Salem, NC, UNITED

STATES (U.S. corporation)

University of North Carolina, Chapel Hill, NC, UNITED

STATES (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 20080293667	A1	20081127
APPLICATION INFO.:	US 2007-980819	A1	20071031 (11)
RELATED APPLN. INFO.:	Division of Ser. No. US 2006-588313, filed on 27 Oct 2006, Pat. No. US 7294621 Division of Ser. No. US 2004-943923, filed on 20 Sep 2004, Pat. No. US 7141557 Continuation of Ser. No. US 1999-412253, filed on 5 Oct 1999, Pat. No. US 6232679 Division of Ser. No. US 1997-793470, filed on 2 May 1997, Pat. No. US 5962437 Continuation of Ser. No. US 1994-314901, filed on 29 Sep 1994, ABANDONED Continuation-in-part of Ser. No. US 1994-297416, filed on 29 Aug 1994, ABANDONED		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	MORGAN LEWIS & BOCKIUS LLP, 1111 PENNSYLVANIA AVENUE NW, WASHINGTON, DC, 20004, US		
NUMBER OF CLAIMS:	61		
EXEMPLARY CLAIM:	1-20		
LINE COUNT:	1152		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

AB The invention relates to methods of treating viral infections, and in particular hepatitis B virus. The method comprises administering to a subject in need of such treatment an infection-controlling amount of a phospholipid or phospholipid derivative to inhibit the activity of the viral infection.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 178172-98-0 178172-99-1 178173-00-7

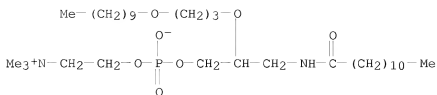
178173-01-8

(phospholipids for treating viral infections and tumors)

RN 178172-98-0 USPATFULL

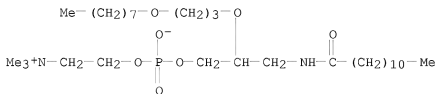
CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,

7-[3-(decyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



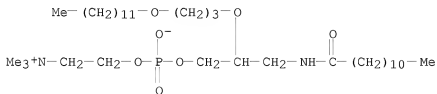
RN 178172-99-1 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt,  
4-oxide (9CI) (CA INDEX NAME)



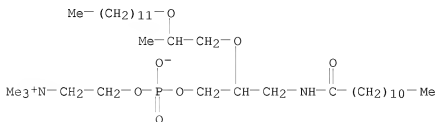
RN 178173-00-7 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,  
4-oxide (9CI) (CA INDEX NAME)



RN 178173-01-8 USPATFULL

CN Ethanaminium, 2-[[[2-[2-(dodecyloxy)propoxy]-3-[(1-oxododecyl)amino]propoxy]hydroxyphosphinyl]oxy]-N,N,N-trimethyl-, inner  
salt (CA INDEX NAME)



L4 ANSWER 14 OF 24 USPATFULL on STN

ACCESSION NUMBER: 2007:121606 USPATFULL

TITLE: Lipid analogs for inhibiting HIV-1 activity

INVENTOR(S): Kucera, Louis S., Pfafftown, NC, UNITED STATES

Morris-Natschke, Susan L., Apex, NC, UNITED STATES



PATENT ASSIGNEE(S): Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES  
Wake Forest University (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 20070105812	A1	20070510
	US 7294620	B2	20071113
APPLICATION INFO.:	US 2006-588311	A1	20061027 (11)
RELATED APPLN. INFO.:	Division of Ser. No. US 1999-412539, filed on 4 Oct 1999, GRANTED, Pat. No. US 7129227 Division of Ser. No. US 1997-793470, filed on 2 May 1997, GRANTED, Pat. No. US 5962437 Continuation of Ser. No. US 1994-314901, filed on 29 Sep 1994, ABANDONED Continuation-in-part of Ser. No. US 1994-297416, filed on 29 Aug 1994, ABANDONED		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	MORGAN LEWIS & BOCKIUS LLP, 1111 PENNSYLVANIA AVENUE NW, WASHINGTON, DC, 20004, US		
NUMBER OF CLAIMS:	18		
EXEMPLARY CLAIM:	1-106		
LINE COUNT:	898		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to methods of treating viral infections, and in particular hepatitis B virus. The method comprises administering to a subject in need of such treatment an infection-controlling amount of a phospholipid or phospholipid derivative to inhibit the activity of the viral infection.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

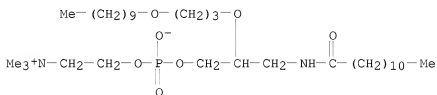
IT 178172-98-0 178172-99-1 178173-00-7

178173-01-8

(phospholipids for treating viral infections and tumors)

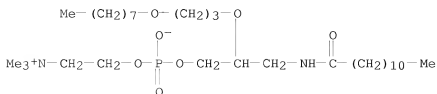
RN 178172-98-0 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[3-(decyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

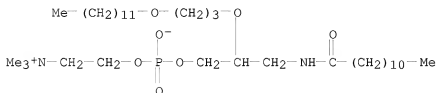


RN 178172-99-1 USPATFULL

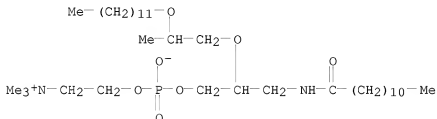
CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



RN 178173-00-7 USPATFULL  
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
 7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,  
 4-oxide (9CI) (CA INDEX NAME)



RN 178173-01-8 USPATFULL  
 CN Ethanaminium, 2-[[[2-[2-(dodecyloxy)propoxy]-3-[(1-oxododecyl)amino]propoxy]hydroxyphosphinyl]oxy]-N,N,N-trimethyl-, inner salt (CA INDEX NAME)



L4 ANSWER 15 OF 24 USPATFULL on STN  
 ACCESSION NUMBER: 2007:121605 USPATFULL  
 TITLE: Lipid analogs for inhibiting the activity of hepatitis B antigen  
 INVENTOR(S): Kucera, Louis S., Pfafftown, NC, UNITED STATES  
 Morris-Natschke, Susan L., Apex, NC, UNITED STATES  
 Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES  
 PATENT ASSIGNEE(S): Wake Forest University (U.S. corporation)  
 University of North Carolina at Chapel Hill (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 20070105811	A1	20070510
	US 7294619	B2	20071113
	US 2006-588308	A1	20061027 (11)
APPLICATION INFO.:	Division of Ser. No. US 2004-889127, filed on 13 Jul 2004, GRANTED, Pat. No. US 7135584 Division of Ser. No. US 1999-412539, filed on 4 Oct 1999, GRANTED, Pat. No. US 7129227 Division of Ser. No. US 1997-793470, filed on 2 May 1997, GRANTED, Pat. No. US 5962437		
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1994-314901, filed on 29 Sep 1994, ABANDONED Continuation-in-part of Ser. No. US 1994-297416, filed on 29 Aug 1994, ABANDONED		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	MORGAN LEWIS & BOCKIUS LLP, 1111 PENNSYLVANIA AVENUE NW, WASHINGTON, DC, 20004, US		
NUMBER OF CLAIMS:	20		

EXEMPLARY CLAIM: 1-106

LINE COUNT: 899

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to methods of treating viral infections, and in particular hepatitis B virus. The method comprises administering to a subject in need of such treatment an infection-controlling amount of a phospholipid or phospholipid derivative to inhibit the activity of the viral infection.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

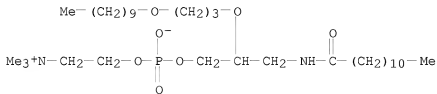
IT 178172-98-0 178172-99-1 178173-00-7

178173-01-8

(phospholipids for treating viral infections and tumors)

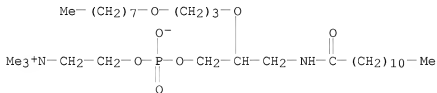
RN 178172-98-0 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-[3-(decyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,  
4-oxide (9CI) (CA INDEX NAME)



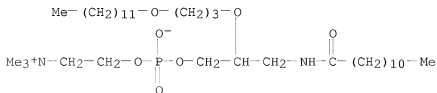
RN 178172-99-1 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt,  
4-oxide (9CI) (CA INDEX NAME)



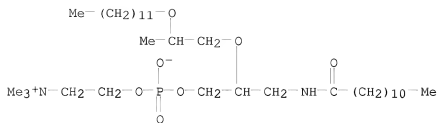
RN 178173-00-7 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,  
4-oxide (9CI) (CA INDEX NAME)



RN 178173-01-8 USPATFULL

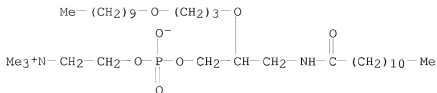
CN Ethanaminium, 2-[[[2-[2-(dodecyloxy)propoxy]-3-[(1-oxododecyl)amino]propoxy]hydroxyphosphinyl]oxy]-N,N,N-trimethyl-, inner salt (CA INDEX NAME)



L4 ANSWER 16 OF 24 USPATFULL on STN  
 ACCESSION NUMBER: 2007:114796 USPATFULL  
 TITLE: Lipid analogs for combating tumors  
 INVENTOR(S): Kucera, Louis S., Pfafftown, NC, UNITED STATES  
 Morris-Natschke, Susan L., Apex, NC, UNITED STATES  
 Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES  
 PATENT ASSIGNEE(S): Wake Forest University (U.S. corporation)

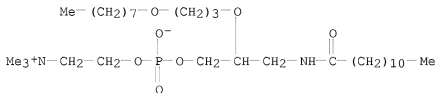
	NUMBER	KIND	DATE
PATENT INFORMATION:	US 20070099870	A1	20070503
	US 7294621	B2	20071113
APPLICATION INFO.:	US 2006-588313	A1	20061027 (11)
RELATED APPLN. INFO.:	Division of Ser. No. US 2004-943923, filed on 20 Sep 2004, GRANTED, Pat. No. US 7141557 Continuation of Ser. No. US 1999-412539, filed on 4 Oct 1999, GRANTED, Pat. No. US 7129227 Division of Ser. No. US 1997-793470, filed on 2 May 1997, GRANTED, Pat. No. US 5962437 Continuation of Ser. No. US 1994-314901, filed on 29 Sep 1994, ABANDONED Continuation-in-part of Ser. No. US 1994-297416, filed on 29 Aug 1994, ABANDONED		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	MORGAN LEWIS & BOCKIUS LLP, 1111 PENNSYLVANIA AVENUE NW, WASHINGTON, DC, 20004, US		
NUMBER OF CLAIMS:	19		
EXEMPLARY CLAIM:	1-106		
LINE COUNT:	900		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			
AB	The invention relates to methods of treating viral infections, and in particular hepatitis B virus. The method comprises administering to a subject in need of such treatment an infection-controlling amount of a phospholipid or phospholipid derivative to inhibit the activity of the viral infection.		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
 IT 178172-98-0 178172-99-1 178173-00-7  
 178173-01-8  
 (phospholipids for treating viral infections and tumors)  
 RN 178172-98-0 USPATFULL  
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
 7-[3-(decyloxy)propoxy]-4-hydroxy-N,N-trimethyl-10-oxo-, inner salt,  
 4-oxide (9CI) (CA INDEX NAME)



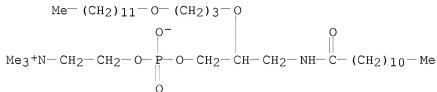
RN 178172-99-1 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt,  
4-oxide (9CI) (CA INDEX NAME)



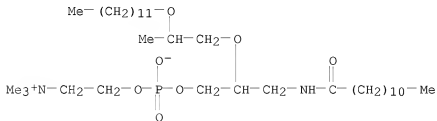
RN 178173-00-7 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,  
4-oxide (9CI) (CA INDEX NAME)



RN 178173-01-8 USPATFULL

CN Ethanaminium, 2-[[[2-[2-(dodecyloxy)propoxy]-3-[(1-oxododecyl)amino]propoxy]hydroxyphosphinyl]oxy]-N,N,N-trimethyl-, inner  
salt (CA INDEX NAME)



L4 ANSWER 17 OF 24 USPATFULL on STN

ACCESSION NUMBER: 2006:284487 USPATFULL

TITLE: Lipid analogs for treating viral infections

INVENTOR(S): Kucera, Louis S., Pfafftown, NC, UNITED STATES

Morris-Natschke, Susan L., Apex, NC, UNITED STATES

PATENT ASSIGNEE(S): Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES  
Wake Forest University, Winston Salem, NC, UNITED STATES (U.S. corporation)  
University of North Carolina at Chapel Hill, Chapel Hill, NC, UNITED STATES (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 7129227	B1	20061031
APPLICATION INFO.:	US 1999-412539		19991004 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 2003-793470, Pat. No. US 5962437 A 371 of International Ser. No. WO 1995-US10111, filed on 7 Aug 1995 Continuation of Ser. No. US 1994-314901, filed on 29 Sep 1994, ABANDONED Continuation-in-part of Ser. No. US 1994-297416, filed on 29 Aug 1994, ABANDONED		

DOCUMENT TYPE: Utility  
FILE SEGMENT: GRANTED  
PRIMARY EXAMINER: Coleman, Brenda  
LEGAL REPRESENTATIVE: Morgan Lewis & Bockius LLP  
NUMBER OF CLAIMS: 24  
EXEMPLARY CLAIM: 1  
LINE COUNT: 1259

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

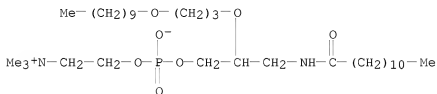
AB A method of treating viral infections, and in particular HIV-1, hepatitis B virus, and herpesviruses, is disclosed. The method comprises administering to a subject in need of such treatment an infection-combating amount of a phospholipid or phospholipid derivative.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 178172-98-0 178172-99-1 178173-00-7  
178173-01-8  
(phospholipids for treating viral infections and tumors)

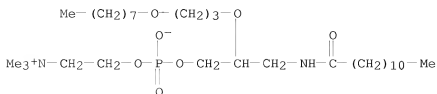
RN 178172-98-0 USPTFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-[3-(decyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,  
4-oxide (9CI) (CA INDEX NAME)

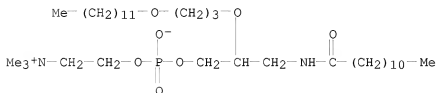


RN 178172-99-1 USPTFULL

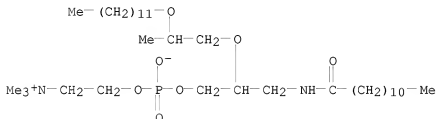
CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt,  
4-oxide (9CI) (CA INDEX NAME)



RN 178173-00-7 USPATFULL  
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
 7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,  
 4-oxide (9CI) (CA INDEX NAME)



RN 178173-01-8 USPATFULL  
 CN Ethanaminium, 2-[[[2-(dodecyloxy)propoxy]-3-[(1-oxododecyl)amino]propoxy]hydroxyphosphinyl]oxy]-N,N,N-trimethyl-, inner salt (CA INDEX NAME)



L4 ANSWER 18 OF 24 USPATFULL on STN  
 ACCESSION NUMBER: 2005:215516 USPATFULL  
 TITLE: Phospholipids for the treatment of infection by  
 togaviruses, herpes viruses and coronaviruses  
 INVENTOR(S): Fleming, Ronald A., Cary, NC, UNITED STATES  
 Hes, Jan V., Hurdle Mills, NC, UNITED STATES  
 Huang, Yunsheng, Apex, NC, UNITED STATES  
 Read, Russ H., Rural Hill, NC, UNITED STATES  
 Morris-Natschke, Susan L., Apex, NC, UNITED STATES  
 Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES  
 Kucera, Louis S., Pfafftown, NC, UNITED STATES  
 Furman, Phillip A., Durham, NC, UNITED STATES  
 PATENT ASSIGNEE(S): Kucera Pharmaceutical Company (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 20050187192	A1	20050825
APPLICATION INFO.:	US 2004-783927	A1	20040220 (10)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	Madeline I. Johnston, Esq., KING & SPALDING LLP, 45th Floor, 191 Peachtree Street, N.E., Atlanta, GA, 30303, US		
NUMBER OF CLAIMS:	65		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	2 Drawing Page(s)		
LINE COUNT:	2757		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			
AB Provided are compounds, methods and pharmaceutical compositions for			

treating a host, especially a human, infected with a togavirus, herpes virus and/or coronavirus, and in particular SARS-CoV, cytomegalovirus or varicella-zoster virus. The method in one embodiment comprises administering to that host an effective amount of an anti-togavirus, anti-herpes virus and/or anti-coronavirus phospholipid or a pharmaceutically acceptable salt or prodrug thereof. The phospholipid compound is, e.g., a 3-alkylamido-2-alkoxypropylphosphocholine compound or salt thereof. The compound may be administered alone or in combination and/or alternation with one or more other anti-viral agents.

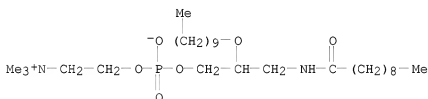
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 252371-27-0 443882-90-4 443882-91-5

(phospholipids for treatment of infection by togaviruses, herpes viruses and coronaviruses)

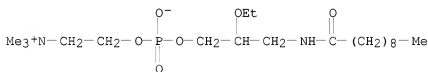
RN 252371-27-0 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium,  
7-(decyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide  
(9CI) (CA INDEX NAME)



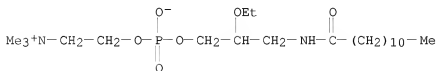
RN 443882-90-4 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium,  
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)  
(CA INDEX NAME)



RN 443882-91-5 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)  
(CA INDEX NAME)



L4 ANSWER 19 OF 24 USPATFULL on STN

ACCESSION NUMBER: 2005:215515 USPATFULL

TITLE: Methods and compositions for the treatment of  
respiratory syncytial virus

INVENTOR(S): Kucera, Louis S., Pfafftown, NC, UNITED STATES



Morris-Natschke, Susan L., Apex, NC, UNITED STATES  
 Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES  
 Fleming, Ronald A., Cary, NC, UNITED STATES  
 Hess, Jan V., Hurdle Mills, NC, UNITED STATES  
 Huang, Yunsheng, Apex, NC, UNITED STATES  
 Read, Russ H., Rural Hall, NC, UNITED STATES  
 Furman, Phillip A., Durham, NC, UNITED STATES

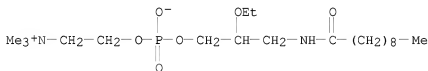
	NUMBER	KIND	DATE
PATENT INFORMATION:	US 20050187191	A1	20050825
APPLICATION INFO.:	US 2004-781894	A1	20040220 (10)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	MORGAN LEWIS & BOCKIUS LLP, 1111 PENNSYLVANIA AVENUE NW, WASHINGTON, DC, 20004, US		
NUMBER OF CLAIMS:	39		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	1 Drawing Page(s)		
LINE COUNT:	2105		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

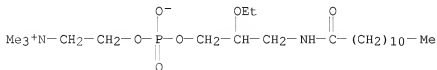
AB The invention includes compounds useful for inhibiting RSV replication and treating a host infected with RSV. The invention also includes methods of treating a host infected with RSV by administering to the host an anti-RSV effective amount of a compound of the invention.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 443882-90-4, KPC 11 443882-91-5, KPC 15  
 (comps. for treatment of respiratory syncytial virus)  
 RN 443882-90-4 USPATFULL  
 CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium,  
 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)  
 (CA INDEX NAME)

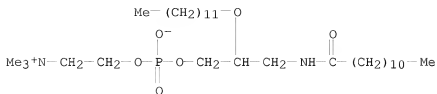


RN 443882-91-5 USPATFULL  
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)  
 (CA INDEX NAME)



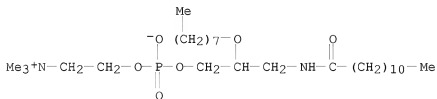
IT 207298-91-7 207298-93-9 252371-27-0  
 443882-96-0  
 (comps. for treatment of respiratory syncytial virus)  
 RN 207298-91-7 USPATFULL  
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
 7-(dodecyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide

(9CI) (CA INDEX NAME)



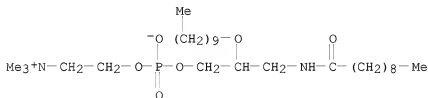
RN 207298-93-9 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
4-hydroxy-N,N,N-trimethyl-7-(octyloxy)-10-oxo-, inner salt, 4-oxide  
(9CI) (CA INDEX NAME)



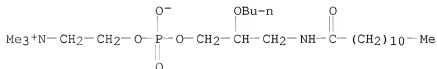
RN 252371-27-0 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium,  
7-(decyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide  
(9CI) (CA INDEX NAME)



RN 443882-96-0 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-butoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI)  
(CA INDEX NAME)



L4 ANSWER 20 OF 24 USPATFULL on STN

ACCESSION NUMBER: 2005:93372 USPATFULL

TITLE: Lipid analogs for treating viral infections

INVENTOR(S): Kucera, Louis S., Pfafftown, NC, UNITED STATES

Morris-Natschke, Susan L., Apex, NC, UNITED STATES

Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES

PATENT ASSIGNEE(S): Wake Forest University, Winston-Salem, NC, UNITED STATES (U.S. corporation)  
University of North Carolina at Chapel Hill, Chapel Hill, NC, UNITED STATES (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 20050080050	A1	20050414
	US 7141557	B2	20061128
APPLICATION INFO.:	US 2004-943923	A1	20040920 (10)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1999-412539, filed on 4 Oct 1999, PENDING Division of Ser. No. US 1997-793470, filed on 2 May 1997, GRANTED, Pat. No. US 5962437 A 371 of International Ser. No. WO 1995-US10111, filed on 7 Aug 1995		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	MORGAN LEWIS & BOCKIUS LLP, 1111 PENNSYLVANIA AVENUE NW, WASHINGTON, DC, 20004, US		
NUMBER OF CLAIMS:	34		
EXEMPLARY CLAIM:	1-106		
LINE COUNT:	960		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method of treating viral infections, and in particular HIV-1, hepatitis B virus, and herpes virus, is disclosed. The method comprises administering to a subject in need of such treatment an infection-controlling amount of a phospholipid or phospholipid derivative.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

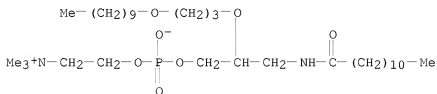
IT 178172-98-0 178172-99-1 178173-00-7

178173-01-8

(phospholipids for treating viral infections and tumors)

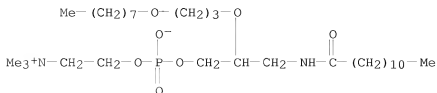
RN 178172-98-0 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[3-(decyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

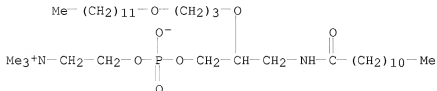


RN 178172-99-1 USPATFULL

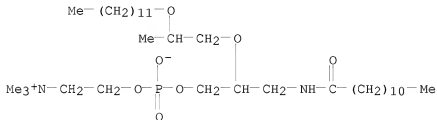
CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



RN 178173-00-7 USPATFULL  
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
 7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,  
 4-oxide (9CI) (CA INDEX NAME)



RN 178173-01-8 USPATFULL  
 CN Ethanaminium, 2-[[[2-(dodecyloxy)propoxy]-3-[(1-oxododecyl)amino]propoxy]hydroxyphosphinyl]oxy]-N,N,N-trimethyl-, inner salt (CA INDEX NAME)



L4 ANSWER 21 OF 24 USPATFULL on STN  
 ACCESSION NUMBER: 2004:328020 USPATFULL  
 TITLE: Lipid analogs for treating viral infections  
 INVENTOR(S): Kucera, Louis S., Pfafftown, NC, UNITED STATES  
 Morris-Natschke, Susan L., Apex, NC, UNITED STATES  
 Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES  
 PATENT ASSIGNEE(S): Wake Forest University, Winston-Salem, NC (U.S. corporation)  
 University of North Carolina at Chapel Hill, Chapel Hill, NC (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 20040259845	A1	20041223
	US 7135584	B2	20061114
APPLICATION INFO.:	US 2004-889127	A1	20040713 (10)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1999-412539, filed on 4 Oct 1999, ABANDONED Division of Ser. No. US 1997-793470, filed on 2 May 1997, GRANTED, Pat. No. US 5962437 A 371 of International Ser. No. WO 1995-US10111, filed on 7 Aug 1995, PENDING		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	MORGAN LEWIS & BOCKIUS LLP, 1111 PENNSYLVANIA AVENUE NW, WASHINGTON, DC, 20004		
NUMBER OF CLAIMS:	19		
EXEMPLARY CLAIM:	CLM-1-106		
LINE COUNT:	903		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

AB A method of treating viral infections, and in particular HIV-1, hepatitis B virus, and herpes virus, is disclosed. The method comprises administering to a subject in need of such treatment an infection-controlling amount of a phospholipid or phospholipid derivative.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

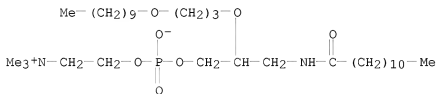
IT 178172-98-0 178172-99-1 178173-00-7

178173-01-8

(phospholipids for treating viral infections and tumors)

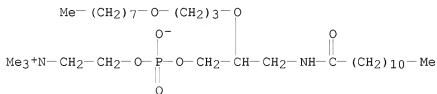
RN 178172-98-0 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-[3-(decyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,  
4-oxide (9CI) (CA INDEX NAME)



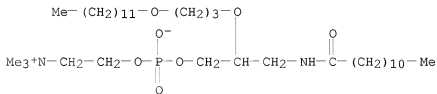
RN 178172-99-1 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt,  
4-oxide (9CI) (CA INDEX NAME)



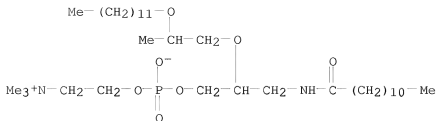
RN 178173-00-7 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,  
4-oxide (9CI) (CA INDEX NAME)



RN 178173-01-8 USPATFULL

CN Ethanaminium, 2-[[[2-[2-(dodecyloxy)propoxy]-3-[(1-oxododecyl)amino]propoxy]hydroxyphosphinyl]oxy]-N,N,N-trimethyl-, inner salt (CA INDEX NAME)



L4 ANSWER 22 OF 24 USPATFULL on STN  
 ACCESSION NUMBER: 2000:24634 USPATFULL  
 TITLE: Method of treating hepatitis virus infections  
 INVENTOR(S): Morris-Natschke, Susan L., Apex, NC, United States  
 Kucera, Louis S., Pfafftown, NC, United States  
 PATENT ASSIGNEE(S): Wake Forest University, Winston-Salem, NC, United States (U.S. corporation)  
 University of North Carolina at Chapel Hill, Chapel Hill, NC, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6030960		20000229
APPLICATION INFO.:	US 1998-102308		19980622 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 1995-465947, filed on 6 Jun 1995, now patented, Pat. No. US 5770584 which is a continuation-in-part of Ser. No. US 1993-74943, filed on 10 Jun 1993, now abandoned		

DOCUMENT TYPE: Utility  
 FILE SEGMENT: Granted  
 PRIMARY EXAMINER: Wilson, James O.  
 LEGAL REPRESENTATIVE: Akin, Gump, Strauss, Hauer & Feld, L.L.P.  
 NUMBER OF CLAIMS: 44  
 EXEMPLARY CLAIM: 1  
 NUMBER OF DRAWINGS: 1 Drawing Figure(s); 1 Drawing Page(s)  
 LINE COUNT: 1631

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

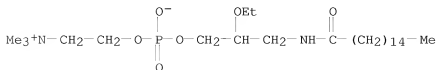
AB A method of treating hepatitis virus infection is disclosed.  
 The method comprising administering to a human subject in need of such treatment an effective hepatitis virus-combatting amount of an alkyl lipid or alkyl lipid derivative.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 112989-01-2P 112989-02-3P  
 (preparation of phospholipids for combating hepatitis B virus)

RN 112989-01-2 USPATFULL

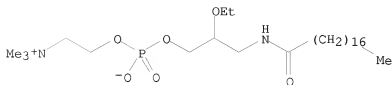
CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,  
 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



RN 112989-02-3 USPATFULL

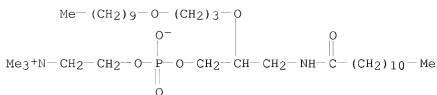
CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium,

7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



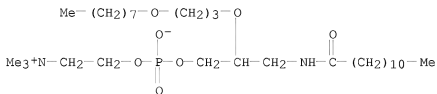
L4 ANSWER 23 OF 24 USPTATFULL on STN  
 ACCESSION NUMBER: 1999:121339 USPTATFULL  
 TITLE: Lipid analogs for treating viral infections  
 INVENTOR(S): Kucera, Louis S., Pfafftown, NC, United States  
 Morris-Natschke, Susan L., Apex, NC, United States  
 Ishaq, Khalid S., Chapel Hill, NC, United States  
 PATENT ASSIGNEE(S): Wake Forest University, Winston-Salem, NC, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5962437		19991005
	WO 9606620		19960307
APPLICATION INFO.:	US 1997-793470		19970502 (8)
	WO 1995-US10111		19950807
			19970502 PCT 371 date
			19970502 PCT 102(e) date
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1994-314901, filed on 29 Sep 1994, now abandoned which is a continuation-in-part of Ser. No. US 1994-297416, filed on 29 Aug 1994, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Raymond, Richard L.		
ASSISTANT EXAMINER:	Coleman, Brenda		
LEGAL REPRESENTATIVE:	Schwegman, Lundberg, Woessner & Kluth, P.A.		
NUMBER OF CLAIMS:	33		
EXEMPLARY CLAIM:	1		
LINE COUNT:	1159		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			
AB	A method of treating viral infections, and in particular HIV-1, hepatitis B virus and herpes viruses, is disclosed. The method comprising administering to a subject in need of such treatment an infection-combating amount of a phospholipid or phospholipid derivative.		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			
IT	178172-98-0 178172-99-1 178173-00-7 178173-01-8 (phospholipids for treating viral infections and tumors)		
RN	178172-98-0 USPTATFULL		
CN	3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[3-(decyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)		



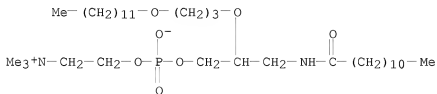
RN 178172-99-1 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt,  
4-oxide (9CI) (CA INDEX NAME)



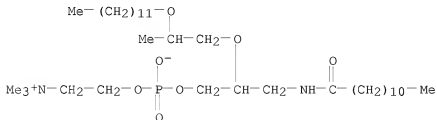
RN 178173-00-7 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium,  
7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt,  
4-oxide (9CI) (CA INDEX NAME)



RN 178173-01-8 USPATFULL

CN Ethanaminium, 2-[[[2-[2-(dodecyloxy)propoxy]-3-[(1-oxododecyl)amino]propoxy]hydroxyphosphinyl]oxy]-N,N,N-trimethyl-, inner  
salt (CA INDEX NAME)



L4 ANSWER 24 OF 24 USPATFULL on STN

ACCESSION NUMBER: 1998:72609 USPATFULL

TITLE: Method of treating hepatitis virus infections

INVENTOR(S): Kucera, Louis S., Pfafftown, NC, United States

Morris-Natschke, Susan L., Apex, NC, United States



PATENT ASSIGNEE(S): Wake Forest University, Winston-Salem, NC, United States (U.S. corporation)  
University of North Carolina, Chapel Hill, NC, United States (U.S. corporation)

	NUMBER	KIND	DATE
	-----	-----	-----
PATENT INFORMATION:	US 5770584		19980623
APPLICATION INFO.:	US 1995-465947		19950606 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1993-74943, filed on 10 Jun 1993, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Wilson, James O.		
LEGAL REPRESENTATIVE:	Schwegman, Lundberg, Woessner & Kluth, P.A.		
NUMBER OF CLAIMS:	14		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	1 Drawing Figure(s); 1 Drawing Page(s)		
LINE COUNT:	1527		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

AB A method of treating hepatitis virus infection is disclosed.  
The method comprising administering to a human subject in need of such treatment an effective hepatitis virus-combatting amount of an alkyl lipid or alkyl lipid derivative.

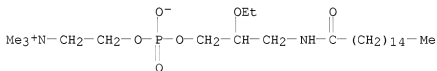
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 112989-01-2P 112989-02-3P 209532-02-5P  
209532-03-6P

(alkyl lipids for treating hepatitis virus infections)

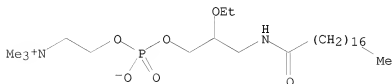
RN 112989-01-2 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,  
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA  
INDEX NAME)



RN 112989-02-3 USPATFULL

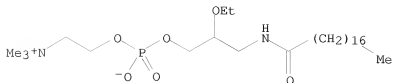
CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium,  
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA  
INDEX NAME)



RN 209532-02-5 USPATFULL

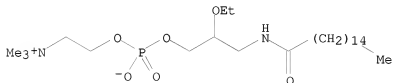
CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium,  
7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide, (+)-  
(9CI) (CA INDEX NAME)

Rotation (+).



RN 209532-03-6 USPATFULL  
 CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium,  
 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide, (+)-  
 (9CI) (CA INDEX NAME)

Rotation (+).



=> d his

(FILE 'HOME' ENTERED AT 11:38:48 ON 21 JAN 2009)

FILE 'REGISTRY' ENTERED AT 11:39:05 ON 21 JAN 2009

L1 STRUCTURE UPLOADED

L2 68 S L1 FULL

FILE 'MEDLINE, CAPLUS, WPIDS, USPATFULL' ENTERED AT 11:39:33 ON 21 JAN 2009

L3 50 S L2

L4 24 S L3 AND (VIRAL OR ANTIVIRAL OR VIRUS OR RSV)

=>

---Logging off of SIN---

=>

Executing the logoff script...

=> LOG Y

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

456.34

642.44

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

SINCE FILE

TOTAL

ENTRY

SESSION

CA SUBSCRIBER PRICE

-34.44

-34.44

STN INTERNATIONAL LOGOFF AT 11:48:49 ON 21 JAN 2009